

# The Wright Stuff: Examining the Centennial of Flight

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SEVERAL NEW BOOKS detailing various aspects of the lives and accomplishments of Wilbur and Orville Wright have been written to mark the centennial of their famous 1902 entry into manned flight. Several of these books, as well as a previously published source, are detailed below and coupled with social studies and language arts activities.

Picture books are often a good place to begin when initiating a new unit of study for elementary students. These books can be shared with the class to arouse curiosity and provide a context for the study of other resources. Tarry Lindquist, author of *Ways That Work: Putting Social Studies Standards into Practice*, explains it this way: "Historically accurate picture books catch the kids' attention, creating an environment in which all kids can learn. They are the first step in building intellectual knowledge about a place, period, or a group of people."<sup>1</sup>

*First to Fly: How Wilbur and Orville Wright Invented the Airplane* captures the reader's attention with its oversized dimensions and captivating cover art. The text describes how the brothers were enthralled with flight from an early age and how that fascination grew into a passion that drove them to devote much of their time to developing a flying machine. The text is complemented by colorful paintings that convey to the reader a sense of the varied settings of the story and by original photographs that document phases of the process of invention. Additionally, the author has included several illustrated vignettes that provide more background on the technical aspects of flight and an early German aeronautical pioneer. The book closes with a chronology of the lives of the famous brothers, a bibliography, and a glossary.

*Airborne: A Photobiography of Wilbur and Orville Wright* is another excellent choice when introducing students to this topic. Many of the photographs published in this book do not appear in other sources, and the images have been magnified to such a degree that great detail can be gleaned from them. Additional resources and a chronology complete this book.

After introducing either of these books, teachers could begin to integrate reading and writing activities within the framework of this social studies content. Examples include reviewing the timelines from one of the books and then creating an additional timeline to cement understanding of chronologically sequenced events. Turner suggests "visualizations through a variety of types of time lines help children to better see events in relation to one another."<sup>2</sup> Examples



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include constructing a timeline of events the children experience as a class during the previous few months. Students could also create character sketches of Orville and Wilbur to enhance their understanding of each member of this famous team while refining their skills in developing graphic organizers.

Additional books for inclusion in the unit might include *The Wondrous Whirligig and Touching the Sky: The Flying Adventures of Wilbur and Orville Wright* (Borden and Marx, 2003). *The Wondrous Whirligig* captures the incident when Milton Wright, a traveling preacher, brings home a toy that flies around the room and generates much excitement in his two youngest sons, Orville and Wilbur. In this fictionalized account, the boys soon channel their energy into specific ideas and begin building a large version of the whirligig that, they imagine, will allow them to soar above their town of Cedar Rapids. Although many facts are embedded within this selection, the author has embellished the historical account to reflect the spirit of a tall tale.

*Touching the Sky: The Flying Adventures of Wilbur and Orville Wright* (Borden and Marx, 2003) also reveals an episode of the brothers' lives. After briefly revisiting the initial accomplishments at Kitty Hawk in 1903, this account focuses on the separate demonstration flights of 1909 in which Wilbur (in New York City), and Orville (in Germany) became renowned celebrities. Although, at 64 pages, this book is longer than a traditional picture book, the easily digestible text makes it a logical selection for inclusion with the other books in this section. The descriptions of both events are framed by the vivid watercolor illustrations.

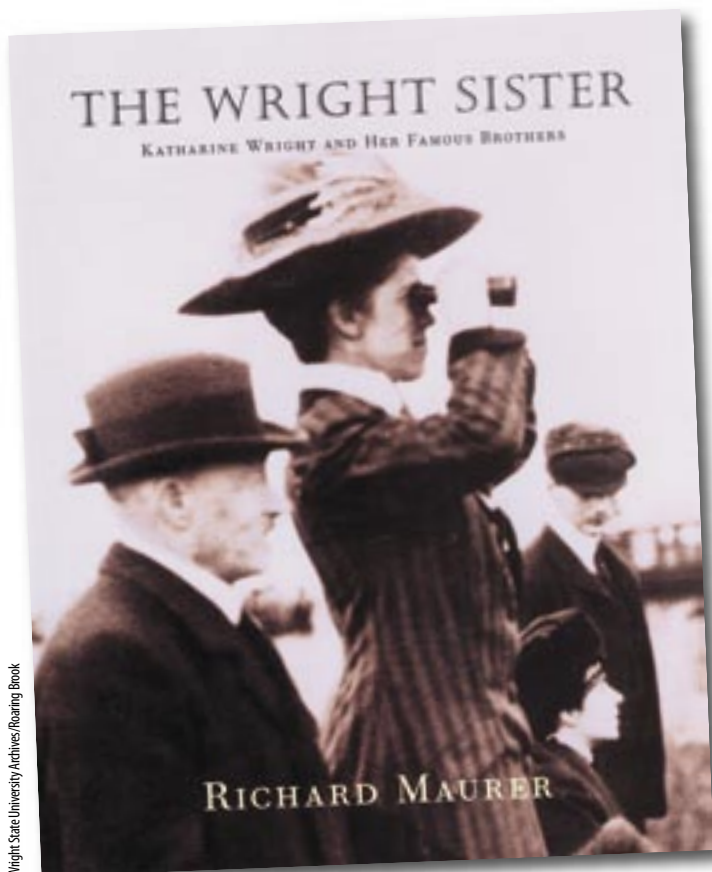
These two selections could be used as examples of partial

biographies during a study of the biography genre. Partial or episodic biographies typically “focus on one significant event in the subject’s life or one part of the subject’s life,” as opposed to complete biographies which “look at the subject’s whole life, focusing on the impact the person made through his or her life.”<sup>3</sup> Students could reflect on previous partial biographies they have read or they might choose to write a partial biography about a previously studied individual. *Touching the Sky: The Flying Adventures of Wilbur and Orville Wright* could also serve as a writing prompt for a comparison/contrast paper. Students could easily compare the two experiences of the brothers and create a paper (or just an outline) that details similarities and differences between the two events.

The remaining picture book, *My Brothers’ Flying Machine*, introduces readers to Katharine, the youngest member of the Wright family and the only daughter among five children. The author also illuminates (through text and full-page illustrations) the close relationship Katharine shared with Wilbur and Orville as well as her steady support for her brothers. This book could be compared with other biographies and their more usual perspectives of the famous Wright family. To illustrate different perspectives in their own lives, students could construct narratives based around a common experience such as a typical lunch period as seen by different people (a new student, a teacher, a cafeteria chef, and a typical student). Then students could discuss differences in their perspectives based on the written accounts. Another book by the same author that is useful for establishing the idea of perspective is *Encounter*; a young boy’s description of Columbus’ visit to San Salvador and some of the consequences of that event.



Simon and Schuster/Peter Fiore

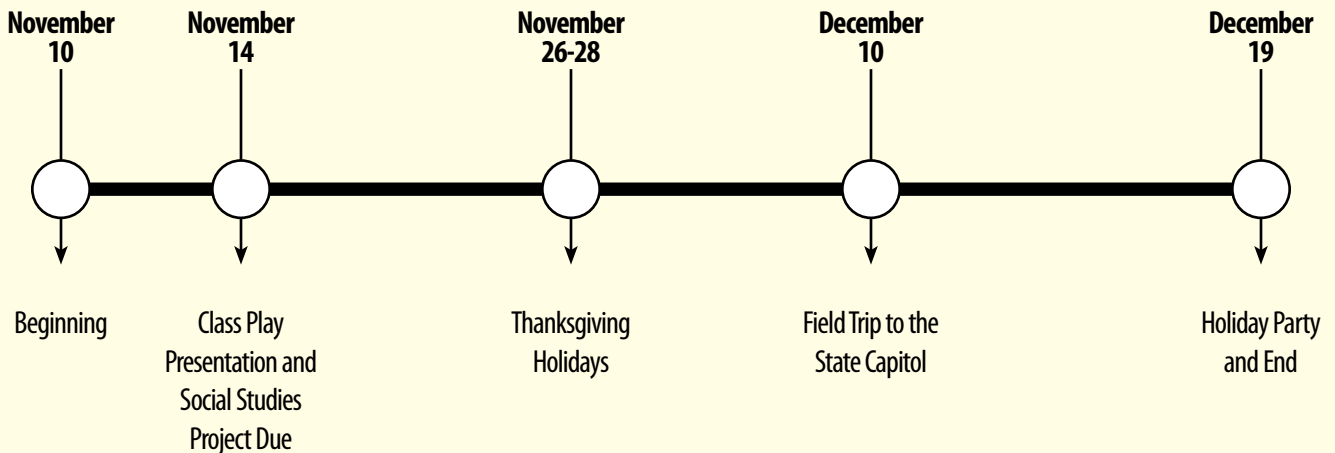


Wright State University Archives/Roaring Book

The final three books discussed are more suited to intermediate level readers due to their advanced vocabulary, extensive narrative passages, and more challenging concepts. *The Wright Sister: Katharine Wright and the Famous Brothers* is an account of the exploits of Wilbur and Orville through the eyes of their beloved “baby sister.” This engaging story is told in four distinct segments which describe Katharine’s support for her siblings’ endeavors and offer insights into her own personality. Her life of service began as a teenager when her mother died, forcing her into the role of primary caretaker for her father. Her support for Wilbur and Orville was unwavering and took many forms over the course of time. On occasion, Katharine prepared meals and served as a host in their home when influential guests arrived, ironed Wilbur’s suit when he had ignored its wrinkled appearance, and even helped Orville prepare his remarks for President Calvin Coolidge and the Aircraft Board.

When she was faced with a choice of developing her own career or aiding her brothers, she routinely sacrificed her own self-interest for the affairs of her brothers. Two specific examples cited detail how she put her teaching career on hold when her famous siblings beckoned. When Orville crashed at Fort Myer, Virginia, and broke several bones, Katharine immediately secured a substitute for her classes and boarded the next train leaving for Virginia. She spent the following six weeks caring for Orville and nursing him back to health. Then, when Katherine was preparing to return to Dayton with her recuperating brother, Wilbur asked both of them to join him in Europe. He said he needed Orville’s technical expertise and would like Katharine to serve as the social secretary for their budding

Figure 1: Timeline for Six-week Grading Period



airplane company. They agreed and soon began their journey.

Katharine took her job seriously and began learning French. She was able to conduct lunch meetings in that language in a relatively short time. Over the course of their overseas excursion, she met and entertained many royal dignitaries including King Edward VII of England, King Alfonso XIII of Spain, and King Victor Emmanuel III of Italy.

Due in part to Katharine's charm and personality, the family venture soon became famous and quite profitable. Her time invested in her brothers' success did carry consequences. Upon returning to Dayton, she was informed that a permanent replacement had been hired for her teaching position. She used this opportunity to serve her community in several capacities: she became director of the Young Woman's League and a leader in the cause of women's suffrage. She was also named a trustee at her alma mater, Oberlin College, where she continued to campaign for women's rights.

Several worthy themes are included in this biography, including personal sacrifice, loyalty, and perseverance. Both of the books featuring Katharine as the protagonist contain quotes describing her contributions to the "family business." Maurer provides a quote from Lieutenant Lahm, an army officer who crossed paths with the family. "In my frequent visits to the hospital, I came to know and appreciate the sterling character of the third member of the team who was with them through the vicissitudes of those early days, sharing their hopes and disappointments." The other quote is contained in *My Brothers' Flying Machine: Wilbur, Orville, and Me*, and is attributed to Orville: "When the world speaks of the Wrights, it must include our sister. Much of our effort has been inspired by her."

Another book that features a different perspective on the Wright Brothers' story is *Race for the Sky: The Kitty Hawk Diaries of Johnny Moore*. This historical fiction is written from the point of view of Johnny Moore, a young boy who lives near the village of Nags Head, North Carolina, with his mother. The novel is written in diary form and begins in "the new century," 1900. Johnny's mother gives him the journal and instructs him to fill it with words describing his

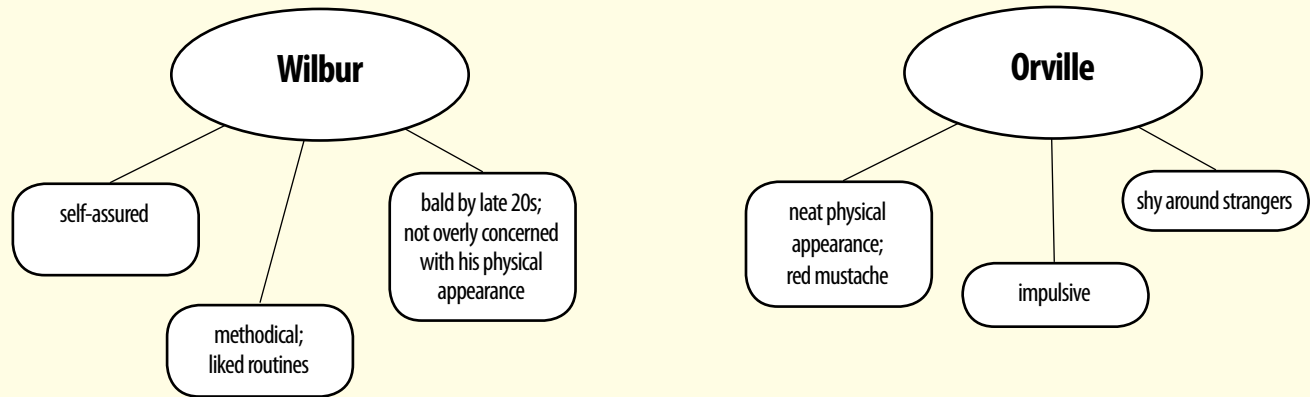
actions as a novice fisherman on the Outer Banks. Johnny is not thrilled with the idea, but counters with his own suggestion, "I say to mamma how about I write in the book every day, but I don't have to go to school no more?" His mother agrees to this (it was not unusual at the time for elder children to leave school in order to work) and the daily journal writing commences.

The entries in Johnny's journal describe his success at fishing, the trials of his favorite baseball team, the Chicago Orphans (later named the Cubs), and the behavior of his annoying little neighbor, Chloe Beasley. Then one day he writes about newcomers from Ohio, a couple of "dingbatters" who begin attempting to build a flying machine down the beach from his home. Curiosity soon consumes Johnny as he initiates spying on the outsiders. He is spotted and quickly makes friends with the new guests. The remainder of the book chronicles the trials and persistence of the Ohio bicycle shop owners as they strive to solve the problem of flight.

Initially, Johnny's daily additions to the journal are wrought with grammatical and spelling errors (a sore spot with his mother), but eventually he begins to conquer his writing deficiencies as he relates the accounts of three successive summers when the Wright Brothers visited his coastal neighborhood. At the conclusion of this story, Johnny has grown into a young man. He is engaged to Chloe, the Cubs win the World Series, and his support of the Wright Brothers is rewarded with a flight in the new Wright Type A Flyer with Orville at the controls. In an informative final section of the book, "In Conclusion: Facts and Fictions," the author explains which aspects of the narrative actually occurred and discusses the authenticity of numerous details of the story.

Several classroom applications could be employed when using this book to refine language arts skills. An obvious connection would be building writing fluency through ungraded journal entries. Students could simply write their thoughts about the events that happened the day before or could write a journal detailing a certain period of the life of a historical figure. If students desired to journal about the adventures of the Wright Brothers, a creative journal cover could be fashioned after the one used by Orville that is pictured on

Figure 2: Character Sketches of Wilbur and Orville Wright



page 43 of *Airborne: A Photobiography of Wilbur and Orville Wright*. Students could also review passages from the first few chapters of the text, searching for Johnny’s multiple grammatical “errors,” as deliberately planted by the author. Excerpts from this read-aloud candidate could prove to be more motivating than independent passages from a worksheet that are not germane to students’ knowledge or interests when addressing these needed skills.

The final book examined is *The Wright Brothers: How They Invented the Airplane*. This selection, unlike the others previously listed, is not a recent publication. It was a Newbery Honor book in 1992 and has received much acclaim since then, most notably from other authors on the subject who list the book as an excellent source. Freedman uncovers the unique personality characteristics of each brother and provides insight into their thought processes that should prove interesting to elementary grade readers. Examples include these passages describing physical appearance: “Orville’s most prominent feature was the reddish mustache he had grown in high school. Dapper and tidy, he was by far the most clothes conscious of the two. Even in the bicycle shop he wore sleeve cuffs and a blue-and-white-striped apron to protect his clothing.” ... “Wilbur wasn’t that fussy. Often he had to be reminded by his sister that his suit needed pressing or that something didn’t match. Once she insisted that he borrow a shirt, cuff links, and an overcoat from Orville before going off to deliver an important speech.”

This selection also includes more detail regarding the Wright brothers’ important work in the bicycle shop that proved to be crucial when they set out to design their first airplane. Other topics explored include their search for the ideal place to test their first glider and the subsequent winter months back in Dayton tinkering with design calculations in an effort to achieve their dream of flight. Freedman also provides a well-defined portrayal of the beaches of the Outer Banks. The following quote captures the severity of a cold winter’s night just a few weeks prior to their historic accomplishment.

“We have no trouble keeping warm at nights,” Wilbur wrote home. “In addition to the classifications of last year, to wit, 1, 2, 3, and 4 blanket nights, we now have 5 blanket nights, and 5 blanket and 2 quilts. Next come 5 blankets, 2 quilts and fire; then 5, 2, fire, and

hot-water jug. This is as far as we have got so far. Next come the addition of sleeping without undressing, then shoes and hats, and finally overcoats! We intend to be comfortable while we are here.”

The photographs in this book are well placed and definitive, while the text informs the reader of the intricacies and demands of the inventive process. The personal anecdotes that are included make these American heroes more accessible. These features, plus

#### Comparison/Contrast Suggestions for *Touching the Sky*

In what ways were the activities of the Wright brothers similar? They each:

- received great recognition for their demonstration flights.
- received attention from newspaper reporters.
- flew with two flags attached to their planes.
- flew during the first decade of the twentieth century.
- had a supportive person present when they flew (Wilbur had Charlie Taylor; Orville had Katharine Wright).

What are some of the ways that their activities were different?

- Wilbur gave exhibition flights in New York, Orville in Germany.
- Wilbur flew over water, but Orville did not.
- Wilbur attached a canoe to his plane.
- Orville gave the crown prince of Germany a ride in his Flyer.
- Orville set a new record for altitude – almost 1600 feet.

#### Incorrect Grammar in *Race For The Sky*

These sentences could be used as the daily “warm-up” for language usage. Can students point out the errors? Can they provide the word or phrase that would make the sentence grammatically correct?

It ain’t exactly paradise here on the Banks. We’re just a 2 hunnerd mile spit of sand ‘tween the Atlantic Ocean and Albemarle Sound, bent like an elbow. (p.11)

After a spell Captain Tate come over and lended him a hand. (p.15)

The wind weren’t strong enough, so it was unfittin’ for flyin’ today. (p.28)

Went a-fishin’ in the mornin’. Caught a mess of fatback. (p.66)

the impeccable research that accompanies Russell Freedman's work, make it an indispensable choice.

If classroom teachers have the luxury of spending several days covering this topic with a variety of sources, they may want students to authenticate events, facts, and possibly illustrations found in the books by comparing multiple sources of the same account. One example drawn from several of the books covered in this article centers around Wilbur's historic flights in New York City around the first week of October in 1909. Wilbur expressed concern about piloting his plane over New York Harbor and the Hudson River. He had not flown over water at that point, and wanted to be prepared for the possibility of having to land in the water for any reason.

*Touching the Sky: The Flying Adventures of Wilbur and Orville Wright* describes how Wilbur addressed this concern about landing on water: "Then he walked down Broadway, the busy street that back in Henry Hudson's days had been a trading trail for the Delaware tribes. He stopped at 814 Broadway, at the Folsom Arms Company, a store that sold canoes and boats in Manhattan, and went inside. Wilbur Wright and his mechanic had decided that the practical way to fly safely over water was to buy a canoe, seal it with a watertight cover, and suspend it from the skids of his flyer. That way, if he crashed and had to land on the water, the canoe would help keep his flyer afloat. Wilbur carefully chose a red 'Indian Girl' Rushton canoe and had it delivered to his shed on Governors Island." This book also includes a two-page illustration devoted to the red canoe described above as well as several other instances where it is pictured attached to the bottom of Wilbur's plane as he navigates the Manhattan skyline.

*The Wright Brothers: How They Invented the Airplane* (discussed earlier) describes the Manhattan venture this way: It was "a flight of 20 miles accompanied by a symphony of bells, whistles, and foghorns from hundreds of American and foreign boats and ships that crowded the river and harbor. In case of an emergency landing in the water, a red canoe was suspended beneath the Flyer's white wings." These two versions could be compared with an image in *First to Fly: How Wilbur and Orville Wright Invented the Airplane*, which pictures Wilbur flying near the Statue of Liberty with a green canoe suspended beneath the plane. Although the color of the canoe in question is a minor historical point, it is a helpful example of the fact that authors and illustrators re-create history from the evidence available, and some do a better job than others at gathering the evidence. The teacher could point out this example, then encourage

students to find their own examples of inconsistencies between two or three different accounts of the Wright Brothers' activities. Such an exercise can encourage students to develop the critical reading and research skills they will need in middle and high school.

The books presented here address social studies content, while also offering teachers a chance to concentrate on several reading, writing, and thinking skills that are often assessed within state-mandated standardized tests. Additionally, these resources offer a glimpse of true American heroes whose success was built upon boundless imagination, dogged persistence, and a professional and ethical demeanor often missing in today's corporate landscape. 📖

#### Notes

1. Tarry Lindquist, *Ways That Work: Putting Social Studies Standards into Practice* (Portsmouth, NH: Heinemann, 1997), 2.
2. Thomas N. Turner, *Essentials of Elementary Social Studies*, 3rd ed. (Boston, MA: Allyn and Bacon, 2004).
3. Diana Mitchell, *Children's Literature: An Invitation to the World* (Boston, MA: Allyn and Bacon, 2003).

#### Selected Children's Literature

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- Busby, Peter, *First to Fly: How Wilbur and Orville Wright Invented the Airplane*. New York: Crown Publishers, 2002.
- Collins, Mary, *Airborne: A Photobiography of Wilbur and Orville Wright*. Washington, D.C.: National Geographic, 2003.
- Freedman, Russell, *The Wright Brothers: How They Invented the Airplane*. New York: Holiday House, 1991.
- Glass, Andrew, *The Wondrous Whirligig: The Wright Brothers' First Flying Machine*. New York: Holiday House, 2003.
- Gutman, Dan, *Race for the Sky: The Kitty Hawk Diaries of Johnny Moore*. New York: Simon and Schuster, 2003.
- Maurer, Richard, *The Wright Sister: Katharine Wright and Her Famous Brothers*. Brookfield, CT: Roaring Brook Press, 2003.
- Yolen, Jane, *Encounter*. New York: Harcourt Brace, 1992.
- . *My Brothers' Flying Machine: Wilbur, Orville, and Me*. New York: Little, Brown, 2003.

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