

Design a Museum Exhibit: Imagining the Age of Flight

Activity Type: HTML

Grade Level: 6–8

An RIF Guide for Educators

Objective: Students will draft a slideshow proposal for a museum exhibit using information gathered from primary and secondary sources.

Content Connections: Literacy, History

Standards:

- **CCSS.ELA-LITERACY.RH.6–8.1:** Cite specific textual evidence to support analysis of primary and secondary sources.
- **CCSS.ELA-LITERACY.RH.6–8.2:** Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
- **CCSS.ELA-LITERACY.RH.6–8.9:** Analyze the relationship between a primary and secondary source on the same topic.

Summary: In this HTML activity, students take the role of a new intern at the National Air and Space Museum to create a multimedia slideshow as a proposal for a new exhibit about the early days of the Age of Flight. Students will read books, articles, and archival sources to gather information for their exhibit. Exhibit proposals will include a one-page proposal statement as well as three artifacts with descriptions and explanations of significance.

Before the Activity

Explore the Wilbur and Orville Wright Papers Teacher Page:

The [Teachers Page to The Wilbur and Orville Wright Papers at the Library of Congress](#) provides standards alignment information, links to the [Collection Highlights](#) page, the collection [Finding Aid](#), and a list of additional [Related Resources](#).

Explore the following online exhibits with the class or instruct them to explore them on their own:

[The Wright Brothers and The Invention of the Aerial Age](#): This online exhibit from the Smithsonian National Air and Space Museum has many fascinating facts and images about the Wright brothers and their efforts.

[The Golden Age of Flight](#): This online exhibit explores the American fascination with flight during the 1920s and 30s, a period when pilots and airplane designers pushed the limits of powered flight.

Explore the Readings: Students will be using the following readings and documents to complete this project.

Books:

- Russell Freedman, *The Wright Brothers: How They Invented the Airplane* (New York: Holiday House, 1991).
 - In this work of history, Freedman explores the lives and interests of the Wright brothers from an early age through the beginnings of the age of flight. Students will be reading the final few chapters from the book, which detail how the successes at Kitty Hawk triggered new developments and achievements in flight.
- Richard Peck, *A Long Way from Chicago* (New York: Dial Books, 1998).

- In this now-classic work of fiction, a young boy tells stories of his time in rural Illinois with his grandmother during the Great Depression. Students will be reading a chapter that describes the grandmother attempting to win a joy ride on a small plane at a county fair.

Articles:

- Orville Wright, "[The Future of the Aeroplane](#)," *Country Life in America*, January, 1909, pages 252–253.
 - In 1909, Orville Wright penned this short article in *Country Life in America* magazine. In it, he speculates on what the next few decades might bring and what the future of the age of flight might look like.
- A.I. Root, "[My Flying Machine Story](#)," *Gleanings In Bee Culture*, January 1, 1905, page 48.
 - Amos Root was a successful beekeeper and manufacturer of beekeeping equipment and supplies. In late December of 1904, he watched in amazement as a Wright brothers plane flew above his head. The Wright brothers had managed to keep their invention secret. But Amos was in the right place at the right time. He reported his observations in a beekeeper's journal in 1905.

Archival Sources:

- [A letter from Wilbur Wright to his father, September 3, 1900](#)
 - In this letter, Wilbur explains some of his successes with the glider and some of his hopes for possible "fame and fortune" from these activities.
- [A letter from Wilbur Wright to Octave Chanute, May 13, 1900](#)
 - In this letter, Wilber reaches out to fellow flight pioneer Octave Chanute to discuss some of his ideas and challenges.
- [Scrapbooks created by Wilbur and Orville Wright, January 1902–December 1908](#)
 - This large collection of scrapbook materials includes articles from the United States and around the world detailing some of the changes in flight around the world in the first few years after the first successful flight.

During the Activity

As students get started, direct them to the following LOC tools:

- [Searching the Library of Congress](#): This tutorial will walk students through the process of searching the Library of Congress's many sources.
- [Primary Source Analysis Tool](#): This tutorial will introduce students to primary sources and provide them with tools for reading and analyzing them.

The Exhibit:

Students will draft a proposal for a new exhibit at the National Air and Space Museum called "Imagining the Age of Flight: Dreams and Realities."

Each exhibit proposal should include the following components:

- A one-paragraph proposal statement (four to seven sentences)

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

- At least three artifacts with the following subcomponents for each:
 - An image
 - A one-paragraph description (two to five sentences)
 - A one-paragraph statement of significance (three to five sentences)

Sample Response:

Proposal Statement:

The Wright brothers were confident in 1909 that the world was about to enter a new age of transportation. They envisioned new advances in engine technology that would make flying almost routine, where pilots would fly for sport, and where everyday transportation needs would be accommodated by airplanes. As it turns out, the Wright brothers were correct in their projections, but they greatly overestimated the pace of change. They expected the Age of Flight to emerge in just a few decades. Instead, as Richard Peck's story of 1932 Illinois reminds us, the airplane was still little more than a novelty for joy-riding and county fairs nearly three decades after the first flight. And when the Age of Flight emerged, it came in the form of flying war machines and large flying personnel carriers.

Artifact:



Description: This image shows a German pilot in WWI sitting behind a front-mounted machine gun in an airplane. The machine gun is pointed toward the propeller at the nose of the plane. This image demonstrates that by 1915 the German military had developed a way to synchronize a machine gun to the gears of a prop plane.

Significance: The machine gun synchronizer was an important and difficult-to-achieve advancement in military aviation. It allowed the pilot to fire a machine gun while sitting in the cockpit and firing in the same direction. The synchronizer tied the firing of the machine gun to the placement of the drive shaft. When the trigger was pulled, the firing was delayed until the drive shaft reached a particular spot in its rotation. At that point, the machine gun fired. This allowed the bullet to pass through the spinning prop without hitting the blades. This advancement allowed pilots to engage in dogfighting and other fighting maneuvers that made the planes more useful as machines of war.

Use this [Grading Rubric](#) to evaluate student museum exhibit proposals.

After the Activity

Elaborate: Consider having the students expand their exhibits to include more artifacts, longer descriptions, or a longer and more involved proposal statement.

Analyze: Consider having students draft a short analysis paper of two to three pages explaining how the artifacts they selected function together to express a narrative or theme.