

Design a Museum Exhibit: Imagining the Age of Flight

Warming Up

Read the following quotations:

Year	Quote
1888	"Is it not demonstrated that a true flying machine, self-raising, self-sustaining, self-propelling, is physically impossible?"—Joseph LeConte
1895	"It is apparent to me that the possibilities of the aeroplane, which two or three years ago were thought to hold the solution to the [flying machine] problem, have been exhausted, and that we must turn elsewhere."—Thomas Edison
1900	"The present generation will not [fly in the next century], and no practical engineer would devote himself to the problem now."—Worby Beaumont
1901	"There is no basis for the ardent hopes and positive statements made as to the safe and successful use of the dirigible balloon or flying machine, or both, for commercial transportation or as weapons of war."—George Melville
1902	"Flight by machines heavier than air is unpractical and insignificant, if not utterly impossible."—Simon Newcomb
1907	"The aeroplane will never fly."—Lord Haldane

With a partner, discuss the following questions:

1. What is the main idea of the quotes?
2. Why do you think the authors of these quotes held this shared opinion of flight?
3. At the time many of these quotes were written, the Wright brothers were actively working to build the first heavier-than-air flying machine. How do you think ideas like these affected the Wright brothers?
4. Clearly, the authors of these quotes were incorrect as the Wright brothers and many others proved them wrong. Do people today have similar views of the unknown? Are there any technologies people today say are impossible that you think will one day become a reality? Explain.

Getting Started

At approximately 10:35 on the morning of December 17, 1903, Orville Wright slid down the launching rail, directly into the 27-mph headlong winds, and up into the air. There he stayed floating on the air for a full 12 seconds. With this achievement, people had finally freed themselves from the surface of Earth. With the sky no longer a limitation, thinkers, tinkers, and philosophers began dreaming about the age of flight. Three decades later, however, the United States was in a grip of the Great Depression, and the fantastical world of flying machines imagined earlier in the century seemed distant. What happened? Where did it all go wrong? Or did it?

As a new intern at the National Air and Space Museum, you have been tasked with proposing a new exhibit called “Imagining the Age of Flight: Dreams and Realities.” To prepare, you will read selections from Russell Freedman’s *The Wright Brothers: How They Invented the Airplane*, Richard Peck’s *A Long Way from Chicago*, and a number of primary source documents from Orville and Wilbur Wright. After building background, you will conduct your own research into the history of aviation from 1903 to the Great Depression with the goal of drafting the perfect proposal for the new museum exhibit at the National Air and Space Museum.



First flight, Kitty Hawk, NC. Dec. 17, 1903. LOC Prints and Photographs;
<http://www.loc.gov/pictures/item/00652085/>

Real-World Topics

- Historians must remind themselves that future events are never inevitable, even though they may seem that way when they look to the past.
- Our past was once a previous generation’s future; and while we know how it did unfold, those previous generations could only speculate.

Readings

The following list of readings and sources should be used to complete the activity. Use the [Research Note Taker](#) to record bibliographical information about each source and important notes from each reading.

Books:

- Russell Freedman, *The Wright Brothers: How They Invented the Airplane* (New York: Holiday House, 1991).
 - Chapters 7–10 (pages 81–117)
- Richard Peck, *A Long Way from Chicago* (New York: Dial Books, 1998).
 - Chapter 4 (pages 61–78)

Articles:

- Orville Wright, “[The Future of the Aeroplane](#),” *Country Life in America*, January, 1909, pages 252–253.
- A.I. Root, “[My Flying Machine Story](#),” *Gleanings In Bee Culture*, January 1, 1905, page 48.

Archival Sources:

- [A letter from Wilbur Wright to his father, September 3, 1900](#)
- [A letter from Wilbur Wright to Octave Chanute, May 13, 1900](#)
- [Scrapbooks created by Wilbur and Orville Wright, January 1902–December 1908](#)

Glossary

- **Aerial Experiment Association:** a Canadian-American aeronautical research group led by Alexander Graham Bell and formed in 1907
- **aeronautics:** the science of air travel
- **Bessemer process:** a process perfected in the mid-19th century that made steel affordable to produce
- **Clément Ader:** a French aviation inventor (1841–1925)
- **dirigible:** a classification of airship that is distinguished by the ability to steer it
- **liniment:** a lotion rubbed on the body to relieve pain
- **locomotive:** the engine of a train
- **Octave Chanute:** a French engineer often described as the father of aviation (1832–1910)
- **Otto Lilienthal:** a German aviation pioneer (1848–1896)
- **telegram:** a message sent electronically and then printed out
- **telegraph:** an electronic messaging system that transmitted signals along wires
- **U.S. Signal Corps:** an organization within the U.S. Army established to develop, test, and manage communications systems
- **Zeppelin:** a type of rigid airship that used hydrogen to float

Building Background

View the slideshow to gain a better understanding of the context in which the Wright brothers took their first flight:

[The Age of Flight in the Making](#)

Activity: Design a Museum Exhibit

Draft a proposal for a new exhibit at the National Air and Space Museum. The exhibit will be called “Imagining the Age of Flight: Dreams and Realities.”

Read Orville Wright’s “The Future of the Aeroplane.” How did Orville Wright imagine the coming age of air travel? And what did that future look like in his mind? Then, read chapter 4, *The Day of Judgment—1932*, of Richard Peck’s book describing the state of air travel in the Depression-era Midwest. Was this the world that the Wright brothers were imagining? How is it similar or different to what the Wright brothers had in mind?

Your exhibit proposal should include:

- A one-paragraph proposal statement
- At least three artifacts with the following:
 - An image

- A one-paragraph description
- A one-paragraph statement of significance

You will be building this exhibit proposal in [Google Slides](#).

Parts of the Activity:

- **Proposal Statement:**

This is a one-paragraph description of the importance of the new exhibit. This paragraph should answer the following questions:

- How did the Wright brothers imagine the coming Age of Flight?
- What does Peck’s story tell us about how much changed by 1932?
- How and why was the dream different from the reality?

Think of this statement as your pitch for your exhibit. It should be engaging and interesting, and it should encourage the reader to learn more. Most importantly, your paragraph should help connect the features of the proposed exhibit to the exhibit’s title: *Imagining the Age of Flight: Dreams and Realities*.

- **Three Artifacts:**

Search the Internet for at least three artifacts that will make up your exhibit. Think of the word “artifact” in the broadest possible terms. You might select from mechanical devices, such as actual flying machines, engineering advancements, safety devices, improvements in design, and many others. Alternatively, an artifact could be a document or publication, such as a patent, an article, written speculation, personal diary pages, letters, and even fiction, like novels, short stories, and poetry. Use your imagination and come up with interesting artifacts to fill your exhibit.

Each artifact should include:

1. An image of the artifact

If it is a document or book, include an image of the cover or typed excerpts. If it is a physical object like a plane or device, include an image of the physical object. Be sure to include a citation for each image.

Example: Photograph. Amelia Earhart. Library of Congress Prints and Photographs Division Washington, D.C. 20540; <http://www.loc.gov/pictures/item/2004671909/>

2. A description of the artifact

The description should be two to five sentences in length and should explain what the artifact is, who developed it or wrote it, when it was created, etc.

3. A statement of significance

The statement of significance should be a paragraph of three to five sentences, and it should explain why the artifact is important, what it demonstrates, and why this artifact belongs in an exhibit entitled *Imagining the Age of Flight: Dreams and Realities*.

Use the following list of websites and resources to research your artifacts. There are many more online resources available, so be sure to browse. You should also consult the books in the Readings section to help support your research.

- Tom D. Crouch, Walter James Boyne, Roger E. Bilstein, “[History of flight](#),” *Encyclopaedia Britannica*.

- American Institute of Aeronautics and Astronautics, "[The History of Flight from Around the World 1910s.](#)"
- "[The Dream of Flight](#)," *Library of Congress*
- Richard P. Hallion, "[Airplanes that Transformed Aviation: Sixteen historic designs that changed the game.](#)" *Air and Space Magazine*, July 2008.
- "[Viewpoint: How WW1 changed aviation forever](#)," October 20, 2014, *BBC News*.
- Alan Taylor, "[World War I in Photos: Aerial Warfare](#)," *The Atlantic*, April 27, 2014.
- Judith Thurman, "[Amelia Earhart's Last Flight](#)," *The New Yorker*, September 14, 2009.

Proposal Worksheet:

Use this [Museum Exhibit Proposal Worksheet](#) to record your notes. Save a copy for yourself and use it to build your proposal. This is a first step toward building the slideshow.

Building Your Slides:

Watch the [Quick Tutorial for New Google Slides Presentation](#). This video will take you through the necessary steps to create a strong, attractive, and convincing presentation. Then, build your slides using [Google Slides](#).

Reflect

Consider the following reflection prompts, and submit your answers in the form of a short essay or through class discussion:

How did the use of primary documents help you better understand the significance of the accomplishments of the Wright brothers? How did reading the primary documents inform your understanding of the emergence of the Age of Flight?