

DISCOVER AMERICA

Course 22 - Teacher Guide



Skyward Pioneers: The Wright Brothers

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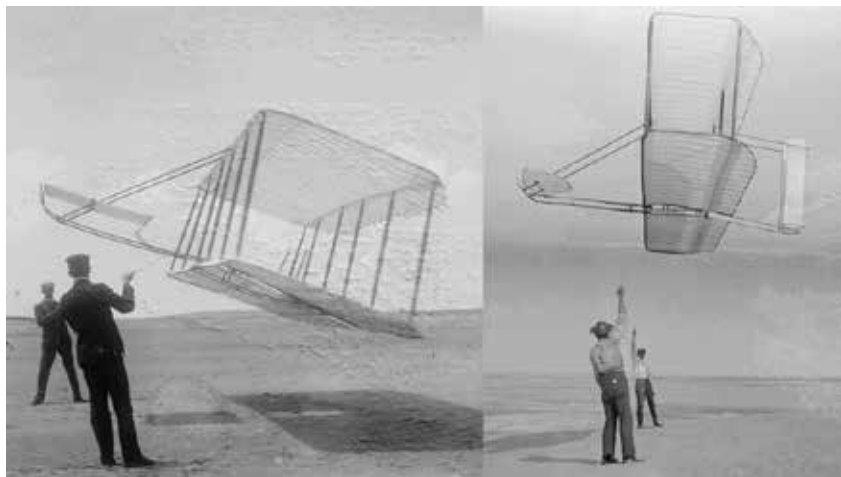
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Key Themes

- Imagination
- Freedom to Explore
- Flight
- Perseverance

Core Values

- Community
- Life
- Liberty

Learning Objectives

Students will be able to

- Identify the Wright brothers.
- Define perseverance.
- List two obstacles faced by the Wright brothers.



The Wright Brothers - First Grade

Key Terms

- 01 **bishop:** someone who helps in a church.
- 02 **obstacle:** something that stands in the way of progress.
- 03 **contribution:** the role played by a person in achieving a certain outcome.
- 04 **perseverance:** to work hard toward a goal even if there is a delay in getting it.

The Wright Brothers - First Grade

Introduction

TELL Students

Show students a plastic airplane. Allow students to take turns throwing the airplane across the classroom.

ASK Students

What makes an airplane fly? What do you know about airplanes?

TELL Students

Airplanes are a much faster way to travel than other forms of transportation. Would it be faster to fly across the country or drive? Yes, flying is much faster! Airplanes can also carry more people than a car or a bus. This invention improved life for many travelers. But, it was not an easy task! We've all heard the saying before: If at first you don't succeed, try try again. Two brothers, Wilbur and Orville Wright certainly took this phrase to heart as they developed the first successful piloted engine-powered airplane. And it's a good thing they did. Let's watch another episode of Star Spangled Adventures to learn more about the Wright brothers.

WATCH

Star Spangled Adventures Cartoon Ep. 22: The Wright Brothers



The Wright Brothers - First Grade

Lesson

TELL Students

The Wright brothers were two brothers named Wilbur and Orville. They were born a long time ago. Wilbur was the older brother and Orville was the younger one. They lived with their mom and dad and their brothers and sisters. Their dad was a bishop. **A bishop is someone who helps in a church.** **The Wright brothers were smart and curious.** They loved to learn how things worked. When they were kids, they played with toys, just like you do. But one special toy changed everything. Their dad brought them a toy helicopter. This toy inspired the brothers to read and learn about flight.

ASK Students

What inspired the Wright brothers to learn more about flight?

TELL Students

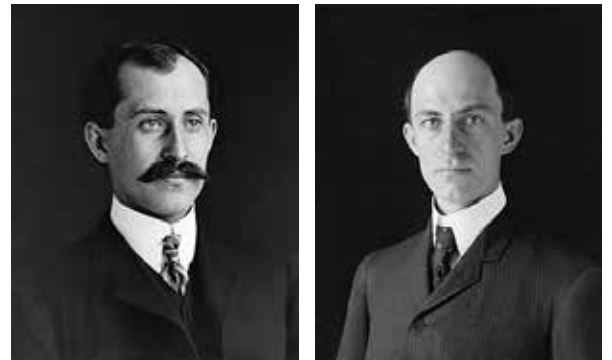
The Wright brothers didn't just dream about flying. They wanted to make flying a possibility for people! So, they started to learn all they could about flying. They read books and asked questions. They tried building their own flying machines! But it wasn't easy. They faced many challenges and were determined to make human flight a possibility.

ASK Students

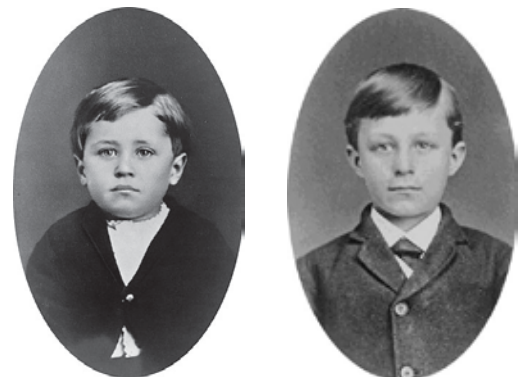
What does determined mean?

TELL Students

When you are determined, you keep trying even when things are difficult. The Wright brothers



Orville (left) and Wilbur Wright in 1905



Orville (left) and Wilbur Wright as children in 1876

The Wright Brothers - First Grade

Lesson

faced many obstacles on their journey. **An obstacle is something that stands in the way of progress.** Imagine you're playing with your toys, and suddenly, something goes wrong. That's what happened to the Wright brothers when they tried to make their flying machines.

ASK Students

Were the Wright brothers successful on their first try?

TELL Students

One big problem the Wright brothers faced was making their machines stay up in the air. Have you ever flown a kite? Sometimes, the wind isn't strong enough, and the kite falls down. This happened to the Wright brothers' flying machines. They had to figure out how to keep the flying machines up in the air. Another problem the Wright brothers faced was making their machines go where they wanted. Imagine you're riding a bike, and it keeps wobbling from side to side. This is what happened to the Wright brothers' flying machines too! They had to learn how to steer them properly so they didn't crash.

ASK Students

What obstacles did the Wright brothers face?

TELL Students

Even though it was hard, the Wright brothers never gave up. They worked together, helped each other, and kept trying until they finally succeeded. Just as you keep trying when something is hard, the Wright brothers kept trying too. And guess what? Eventually, they built the first airplane that could carry a person. The Wright brothers showed us that if we work hard and persevere, we can do amazing things! **Perseverance means to work hard toward a goal even if there is a delay in getting it.**

ASK Students

How did the Wright Brothers persevere?

The Wright Brothers - First Grade

Lesson

TELL Students

The Wright brothers made an important contribution in history. **A contribution is the role played by a person in achieving a certain outcome.** They kept trying even when things were hard, and because of that, they helped change the way we fly today. Even Neil Armstrong, the first person to walk on the moon, carried a piece of the Wright brothers' first aircraft with him during his mission. So, when you see planes in the sky, remember the Wright brothers. They teach us that if we keep trying, we can do amazing things too!

WATCH

Learn More With Liberty Video: What makes an airplane fly?



The Wright Brothers - First Grade

Build Your Own Wright Flyer!

Objective: To introduce first grade students to the achievements of the Wright Brothers and inspire creativity and exploration through a hands-on activity.

Materials Needed:

- Craft sticks (popsicle sticks)
- Glue
- Markers or crayons
- Paper
- Scissors (optional)

Instructions:

1. Begin by gathering students in a circle to review the story of the Wright Brothers. Emphasize the importance of perseverance and determination in achieving dreams.
2. Explain that students will be designing and flying their own paper airplanes, just like the Wright Brothers did when they were experimenting with flight.
3. Provide each student with a sheet of paper and markers or crayons. Encourage students to decorate their paper airplanes however they like, using their creativity and imagination.
4. Once students have finished decorating their paper airplanes, demonstrate how to fold the paper into a simple airplane shape. You can provide step-by-step instructions or show students a video tutorial.
5. After folding their paper airplanes, allow students to test them by flying them in an open area, such as the classroom or outdoors if possible. Encourage students to experiment with different throwing techniques to see how far their airplanes can fly.

6. As students are flying their paper airplanes, engage them in discussions about flight and the achievements of the Wright Brothers. Ask questions such as, "What makes an airplane fly?" and "Why do you think the Wright Brothers were determined to build a flying machine?"

7. After the activity, gather students and briefly reflect on what they learned about flight and the Wright Brothers. Encourage students to share their favorite part of the activity and any ideas they have for improving their paper airplanes.

8. Finally, remind students that just like the Wright Brothers, they can achieve great things if they work hard and never give up on their dreams. Encourage students to keep exploring and learning about the world around them.

The Wright Brothers - First Grade

Resource List

<https://kids.nationalgeographic.com/history/article/wright-brothers>

<https://www.nps.gov/articles/wright-brothers.htm>

<https://www.nps.gov/people/wilburwright.htm>

<https://www.nps.gov/people/orvillewright.htm>

<https://airandspace.si.edu/stories/editorial/who-were-wright-brothers>

<https://www.smithsonianmag.com/smithsonian-institution/how-the-wright-brothers-took-flight-180981001/>

<https://memory.loc.gov/diglib/legacies/loc.afc.afc-legacies.200002919/>

<https://airandspace.si.edu/stories/editorial/wright-before-aviators>

<https://airandspace.si.edu/explore/stories/researching-wright-way#aerodynamics>

https://www.wright-brothers.org/History_Wing/Wright_Story/Inventing_the_Airplane/Kitty_Hawk/Afflicted.htm

<https://wright.grc.nasa.gov/overview.htm>

https://airandspace.si.edu/collection-objects/1903-wright-flyer/nasm_A19610048000

<https://www.nps.gov/articles/roadtofirstflight.htm>

https://www.nps.gov/articles/firstflight.htm?utm_source=article&utm_medium=website&utm_campaign=experience_more&utm_content=small

<https://airandspace.si.edu/explore/stories/researching-wright-way#aerodynamics>

<https://time.com/5418950/first-man-neil-armstrong-wright-flyer/>

