

DISCOVER AMERICA

Course 22 - Teacher Guide



Skyward Pioneers: The Wright Brothers

Table of **Contents**

Themes & Values

Learning Objectives

Key Terms

Introduction

Lesson

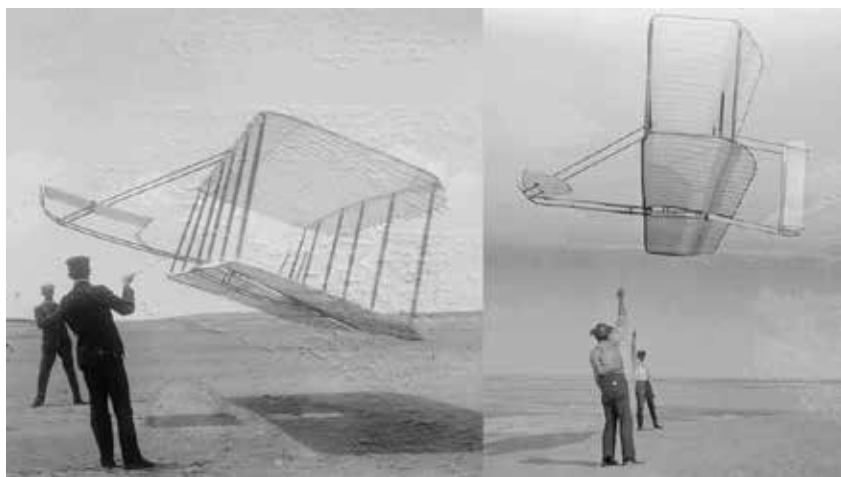
Design and Fly Your Own Paper Airplane

Resources

Notes

Kindergarten

Teacher Guide



Key Themes

- Imagination
- Freedom to Explore
- Flight

Core Values

- Community
- Life
- Liberty

Learning Objectives

Students will be able to

- Identify the Wright brothers.
- Explain why the Wright brothers are famous.
- List two obstacles the Wright brothers faced.



The Wright Brothers - Kindergarten

Key Terms

- 01 **bishop:** someone who helps in a church.
- 02 **obstacle:** something that stands in the way of progress.
- 03 **perseverance:** to work hard toward a goal even if there is a delay in getting it.

The Wright Brothers - Kindergarten

Introduction

TELL Students

Create an airport experience in the classroom using the following steps. Use a table (kids play table, kitchen table, card table, etc.) to set up a ticket counter. Write "Plane Tickets" on a piece of construction paper and tape it to the front of your table. You may use a pretend cash register as a computer. You can also use other office supplies you have around the classroom (pretend phone, file organizer, etc.) to help set the scene. Get creative with what you have! Then, create an airplane by arranging chairs in rows of two. You could even use a roll of white paper, construction paper and painters tape to create the plane windows on a wall in your classroom. You may also want to create a baggage claim area with student backpacks or lunch boxes. Show students the airplane center.

ASK Students

Have you ever been on an airplane?

TELL Students

Today, we are going on a journey in the air! We are going to take a flight. Have students create a passport using an index card and a marker. As a class, decide where your flight is going. Then, have students write their name and their destination name on the passport. Ask students to use their passports to board the plane. Have students pretend to buckle up and take flight. You may give students school-approved snacks on the flight. After the pretend flight has landed, have students exit the plane and retrieve their backpack or lunch box from the baggage claim area.

ASK Students

How does an airplane work? What do you know about airplanes?

The Wright Brothers - Kindergarten

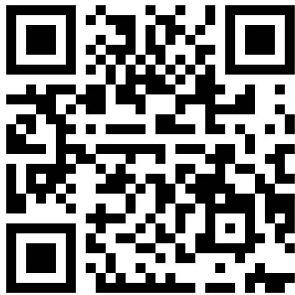
Introduction

TELL Students

Alright, young aviators! Today, we are going to learn about two very special brothers who helped make flying in airplanes possible. These special men are the Wright brothers. 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 - Kindergarten

Lesson

TELL St

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. One day, 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

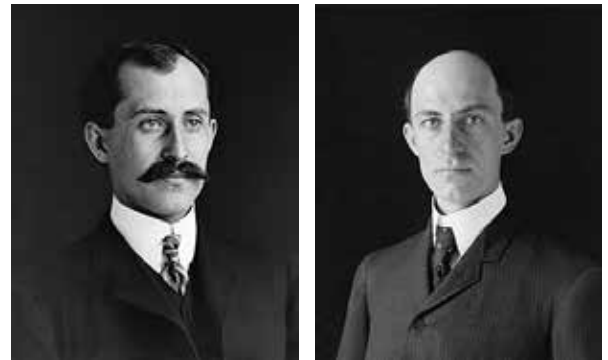
The Wright brothers didn't just dream about flying. They wanted to make flying a possibility for people! So, they started to learn all they could about flying. They read books and asked questions. They tried building their own flying machines! But it wasn't easy. They faced many challenges and were determined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

ASK Students

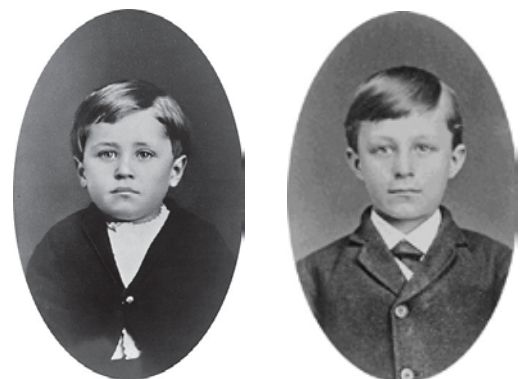
What do you think this phrase means? "If at first you don't succeed, try, try again."

TELL Students

This phrase reminds us to keep trying even when things go wrong. The Wright brothers faced



Orville (left) and Wilbur Wright in 1905



Orville (left) and Wilbur Wright as children in 1876

The Wright Brothers - Kindergarten

Lesson

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

ASK Students

Did the Wright brothers invent the airplane 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 longer. 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! The Wright brothers 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 try again when something is hard, the Wright brothers kept trying too. And guess what? Eventually, they built the first airplane that could carry a person. It was like a big, flying kite! The Wright brothers became famous for inventing an airplane with an engine. They showed us that if we work hard and persevere, we can do amazing things too! **Perseverance means to work hard toward a goal even if there is a delay in getting it.**

The Wright Brothers - Kindergarten

Lesson

ASK Students

How did the Wright Brothers persevere? What are the Wright brothers famous for?

WATCH

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



The Wright Brothers - Kindergarten

Design and Fly Your Own Paper Airplane

Objective: To introduce kindergarten students to the concept of flight and the achievements of the Wright Brothers through a hands-on activity.

Materials Needed:

- Sheets of paper (or copies of the template provided)
- Markers or crayons
- Scissors (optional)
- Tape (optional)

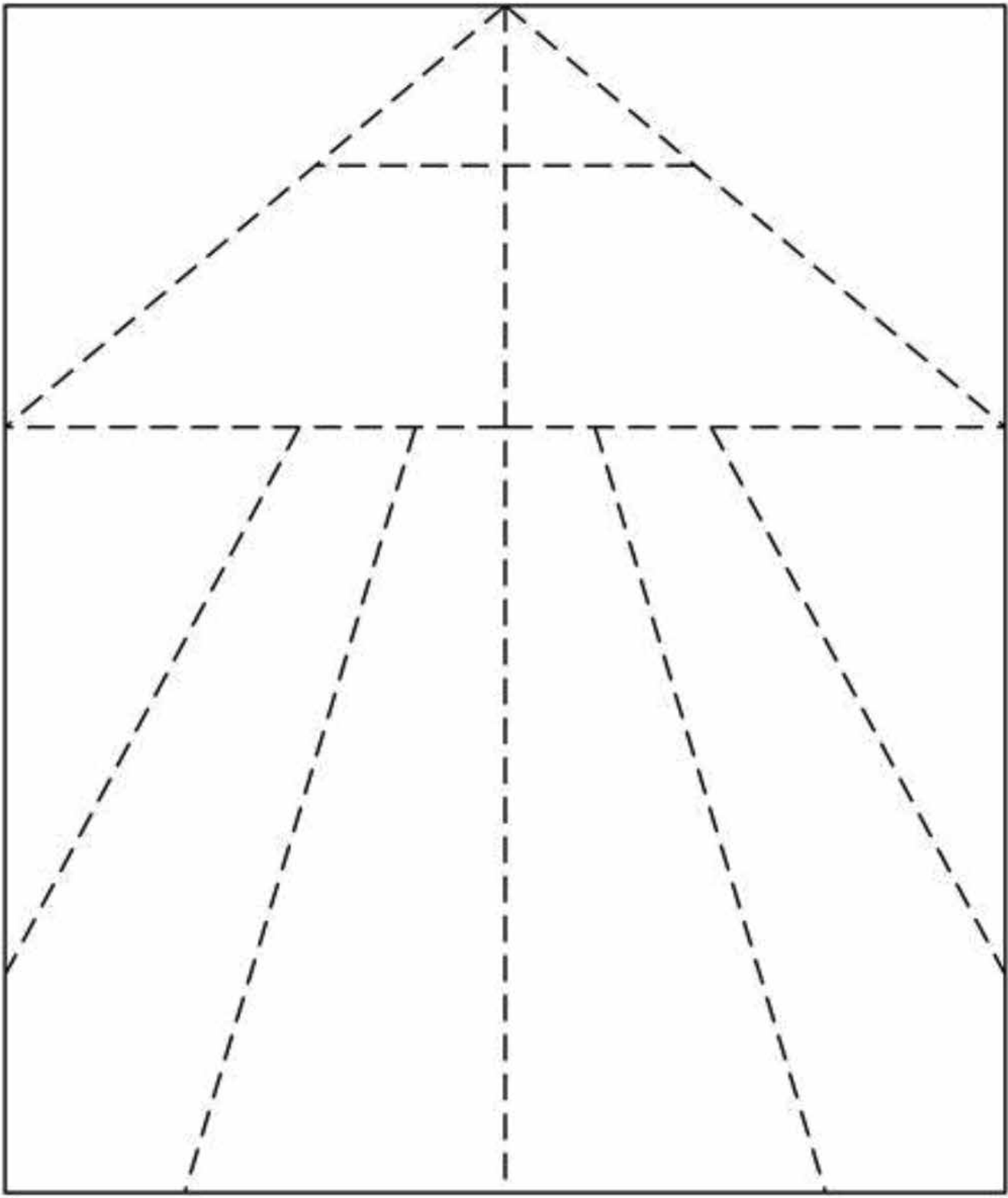
Introduction:

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 - Kindergarten

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/>

