

2016-2017

# DISCOVERY



Resource Guide



## The Wright Brothers: Those Daring Young Men and Their Flying Machine

Produced by Fresh Brewed Productions  
Book by Sterling Swann  
Music & Lyrics by Larry Siegel

**NOVEMBER 15, 2016**

**VICTORIA THEATRE  
9:30 A.M. & 11:30A.M.**

**NOVEMBER 16, 2016**

**NATIONAL MUSEUM OF THE UNITED  
STATES AIR FORCE  
9:30 A.M. & 11:30A.M.**

The Frank M. *Cait* FOUNDATION  
**Discovery**

*Series*

**VICTORIA  
THEATRE  
ASSOCIATION**  
[www.victoriatheatre.com](http://www.victoriatheatre.com)

**W**elcome to the 2016-2017 Frank M. Tait Foundation Discovery Series at Victoria Theatre Association. We are very excited to be your education partner in providing professional arts experiences to you and your students!

The story of the Wright Brothers and their amazing journey serves as an inspiration to students of all ages. What is special, though, is that if you live in Dayton, you have access to where history was made! Whether you dream of flying, or want to uncover how a jet engine works, or you like visiting the spot where two brothers had a simple bicycle shop, you can do it here in Dayton. I hope this musical sparks your curiosity to find out even more about these aviation icons.

The information and activities in this resource guide have been carefully crafted to help you and your students explore the many ways a live theatre experience can open up learning opportunities. Grade level icons will help you determine which activities are good for students, too. And don't forget to take advantage of the local resources listed inside to extend the play-going experience and make even more curricular connections for you and your students. Thank you again and welcome!

**Gary Minyard**  
 Vice President of  
 Education & Engagement



# Curriculum Connections

You will find these icons listed in the resource guide next to the activities that indicate curricular connections. Teachers and parents are encouraged to adapt all of the activities included in an appropriate way for your students' age and abilities. **THE WRIGHT BROTHERS: THOSE DARING YOUNG MEN AND THEIR FLYING MACHINE!** fulfills the following Ohio and National Education Standards and Benchmarks for Grades 2-8:



## OHIO'S NEW LEARNING STANDARDS FOR SCIENCE

- Grade 2- Earth & Space Science (The Atmosphere), Physical Science (Changes in Motion)
- Grade 3 & 4- Physical Science (Matter and Forms of Energy)
- Grade 5- Physical Science (Light, Sound, and Motion)
- Grade 6 & 7- Physical Science (Matter and Motion)
- Grade 8- Physical Science (Forces and Motion)

## OHIO'S NEW LEARNING STANDARDS FOR MATH

- Measurement & Data (Grades 2-5)
- Operations and Algebraic Thinking (Grades 4-5)
- Geometry & Statistics & Probability (Grades 6-8)

## OHIO'S NEW LEARNING STANDARDS FOR SOCIAL STUDIES

- Historical Thinking and Skills (Grades 2-8), Heritage (Grades 2-8)
- People Working Together (Grade 2)
- Communities: Past and Present, Near, and Far (Grade 3)
- Ohio in the United States (Grade 4)

## NATIONAL CORE ARTS THEATRE STANDARDS

- Grade 2—TH:Re7.1.2, TH:Cn10.1.2, TH:Cn11.1.2, TH:Cn11.2.2
- Grade 3—TH:Re7.1.3, TH:Cn10.1.3, TH:Cn11.1.3, TH:Cn11.2.3
- Grade 4—TH:Re7.1.4, TH:Cn10.1.4, TH:Cn11.1.4, TH:Cn11.2.4
- Grade 5—TH:Re7.1.5, TH:Cn10.1.5, TH:Cn11.1.5, TH:Cn11.2.5
- Grade 6—TH:Re7.1.6, TH:Cn10.1.6, TH:Cn11.1.6, TH:Cn11.2.6
- Grade 7—TH:Re7.1.7, TH:Cn10.1.7, TH:Cn11.1.7, TH:Cn11.2.7
- Grade 8—TH:Re7.1.8, TH:Cn10.1.8, TH:Cn11.1.8, TH:Cn11.2.8

This resource guide was created by Amy Handra. All activities are available for distribution and use in the classroom or at home.

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# About the Play

ENGLISH/  
LANGUAGE  
ARTS



## The Wright Brothers: Those Daring Young Men and their Flying Machine!

This story takes place in and around the Wright Brothers' bicycle shop in Dayton, Ohio and at Kitty Hawk, North Carolina. We accompany Wilber and Orville Wright from the time they begin to work on the problems of flight, through the disappointments that nearly make them abandon their dreams, to their final perseverance and triumph at Kitty Hawk more than seven years later. With courage, ingenuity, and determination, they make their dream of flying come true!

# Ohio Spotlight

SOCIAL  
STUDIES



Image courtesy of [www.daytonarts.wordpress.com](http://www.daytonarts.wordpress.com)

## Dayton Inventors River Walk

Did you know that Dayton is the birthplace of thousands of inventions? Among them are the backpack parachute, the ice cream cone, the artificial heart, and the yo-yo! Dayton has had more inventions per capita than any other city in the United States. This is due to the many corporations that have called Dayton home. At one time, Dayton Engineering Laboratories Company (DELCO), Frigidaire, Mead, National Cash Register (NCR), General Motors, and Reynolds & Reynolds could all be found in Dayton. These companies, along with Wright-Patterson Air Force Base, brought inventive minds to Dayton and provided their employees with the resources to dream big and make their ideas a reality. Today you can visit seven Invention Stations at Riverscape Metro Park's Dayton Inventors River Walk along the Great Miami River, commemorating inventions dreamed up right here in the Miami Valley.

For more information, visit [www.metroparks.org/parks/riverscape/riverwalk.aspx](http://www.metroparks.org/parks/riverscape/riverwalk.aspx)

All  
GRADES

SETTING THE STAGE



# From Kite to Wright: The History of Flight



SOCIAL STUDIES

SCIENCE

**350 B.C.E.**—The first kite was invented by Archytus of Tarentum in ancient Greece.

**215 B.C.E.**—Archimedes discovered why things float. His discovery is known as the *Archimedes principle*. This discovery was essential about 2000 years later as inventors began to make balloons.

**1490**—Leonardo da Vinci made drawings of parachutes, helicopters, propellers, and a flying machine with wings. He was also very interested in studying the anatomy of birds.

**1783**—On October 15, 1783, François Piltre de Rozier made the first recorded ascent in a hot air balloon in France.

**1846**—The first aviation publication, called *The Balloon*, was founded by Henry Tracy Coxwell.

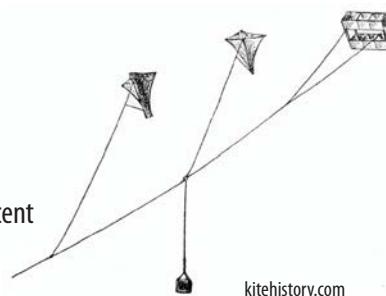
**1891**—Beginning in 1891, German scientist Otto Lilienthal made thousands of flights in gliders, proving that heavier-than-air flight was possible.

**1893**—Wilbur and Orville established the Wright Cycle Company in Dayton, Ohio, and soon began to put their mechanical skills to work designing and repairing bicycles.

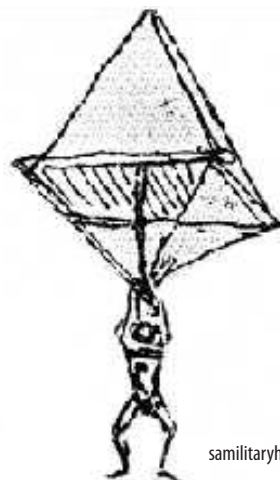
**1903**—On December 17, near Kill Devil Hill, North Carolina, Orville Wright made the first controlled, sustained flight in a heavier-than-air vehicle. His flight was 120 feet in length and lasted 12 seconds. Later the same day, Wilbur flew 852 feet in 59 seconds. This event marked the era of modern aviation.

**1908**—The Wright Brothers signed a contract with the U.S. Government for the construction of the first military airplane. A year later they formed the Wright Company to manufacture airplanes of their own design.

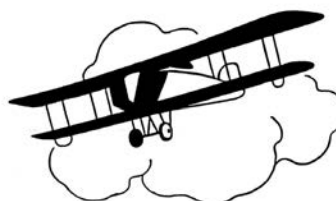
**1948**—A special ceremony on December 17 celebrated the installation of the Wright Flyer in the Smithsonian Institution. The text written below the Wrights' first airplane reads, "By original scientific research, the Wright Brothers discovered the principles of human flight. As inventors, builders, and flyers, they further developed the aeroplane [sic.], taught man to fly, and opened the era of aviation."



kitehistory.com



samilitaryhistory.org



ENGLISH/  
LANGUAGE  
ARTS

SOCIAL  
STUDIES

## Classroom Discussion

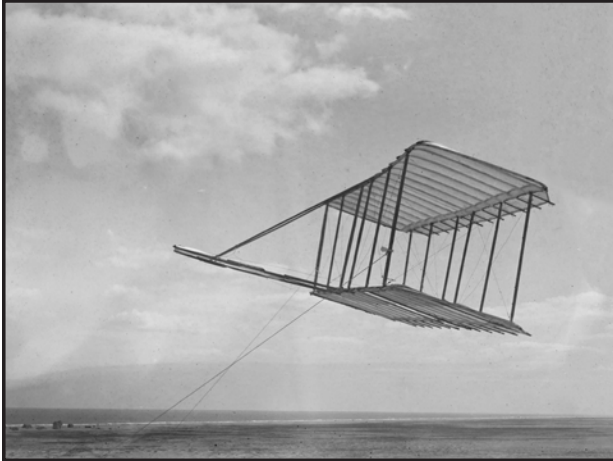
- Brainstorm a list of ways that Orville and Wilbur's experience in their bicycle shop may have helped them as they set out to invent a working airplane. Discuss your ideas.
- The invention of the airplane changed the world. Discuss ways in which this invention has had a lasting impact on society.
- Inventions can change the way that humans interact and connect. What invention has had a similar impact as the airplane? Discuss your answers as a class.

COMPREHENSION

# Charting Early Flight



The Wright Brothers made many models before inventing the first airplane in 1903. Take a look at the following gliders and planes and observe the changes they made to each model. Notice the addition of a propeller, engine, and skids!



## 1900 GLIDER

- Span: 17 ft.
- Wing Area: 165 sq. ft.
- Weight with Operator: 190 lbs.

### FAST FACTS

- Glider flown as a kite at Kitty Hawk, North Carolina
- First experiments sought to measure lift, drift, and center of pressure
- Flights provided the Wright Brothers with first confirmation of flight theories



## 1902 GLIDER

- Span: 32 ft.
- Length: 16 ft.
- Weight: 112 lbs.

### FAST FACTS

- The Wright Brothers made up to 1000 glides at Kitty Hawk with this model
- Used wind tunnel tests to calculate the performance of their future flying machine
- 1902 glider was used again in 1903, just prior to testing the 1903 machine



## 1903 WRIGHT FLYER

- Span: 40 ft.
- Length: 21 ft.
- Wing Area: 510 sq. ft.

### FAST FACTS

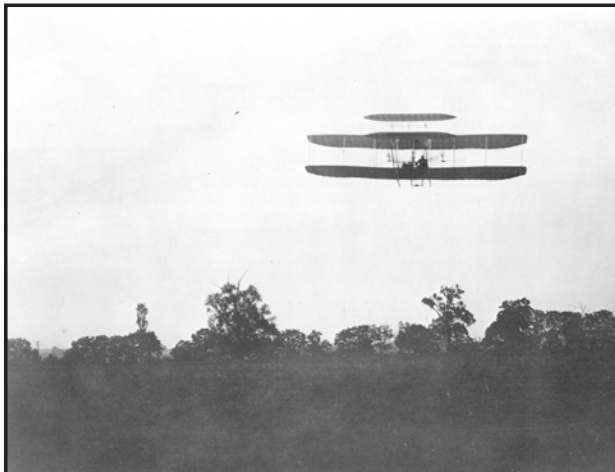
- 1903 Model was essentially the 1902 Glider equipped with a motor and propellers
- First successful powered flight: December 17, 1903, and it lasted 12 seconds and 120 ft.
- Now housed at the Smithsonian Museum in Washington, D.C.

COMPREHENSION

# Charting Early Flight (continued)

SOCIAL  
STUDIES

SCIENCE

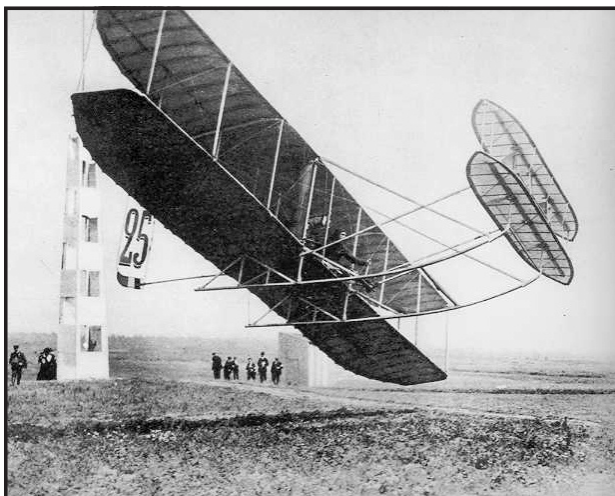


## 1905 WRIGHT FLYER

- Span: 40 ft. 6 in.
- Length: 28 ft.
- Wing Area: 503 sq. ft.

### FAST FACTS

- Modified so that the pilot and passenger could sit upright
- First model to have a bent-end propeller
- Restored plane is now housed in Wright Hall at Carillon Historical Park in Dayton. Original parts include: engine, propellers, wing structure, and rudder struts.



## 1907-1909 WRIGHT FLYERS

- Span: 41 ft.
- Length: 31 ft.
- Wing Area: 510 Sq. ft.

### FAST FACTS

- Conducted practice flights in France, Germany, and Italy
- Machines from this period are sometimes referred to as the Wright Model A
- Machine was purchased by the U.S. Army Signal Corps for \$30,000

Images courtesy of [www.wright-brothers.org](http://www.wright-brothers.org)

## Didn't the Wright Brothers fly in Dayton?

Many people think the Wright Brothers flew their gliders in Dayton before officially travelling to Kitty Hawk, NC. Here's the truth: The Wright Brothers did fly their first kites in Dayton, but soon realized the weather conditions were not stable enough to continue their research. In 1900, they wrote to the National Weather Bureau in Washington, DC for a list of locations on the East Coast where the winds were constant. They suggested Kitty Hawk, and the rest is history!

COMPREHENSION

# Charting Early Flight Student Worksheet

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Utilizing the **Charting Early Flight** information on pages 3-5, can you answer with these questions?  
Work alone or in groups, and see if you can answer all ten without looking!

1. Before the Wright Brothers invented the airplane, they worked in what type of shop?

\_\_\_\_\_

2. At which famous museum can you see the 1903 Wright Flyer?

\_\_\_\_\_

3. How wide was the wing span of the 1900 Glider?

\_\_\_\_\_

4. What was the difference in width between the Wright Brothers' first glider and the 1909 Wright Model A?

\_\_\_\_\_

5. What type of tests did the Wright Brothers run on the 1902 Glider?

\_\_\_\_\_

6. How long was the first recorded flight of the 1903 Flyer?

\_\_\_\_\_

7. Where does the 1905 Wright Flyer now reside?

\_\_\_\_\_

8. In which European countries were the 1907-1909 Flyers tested?

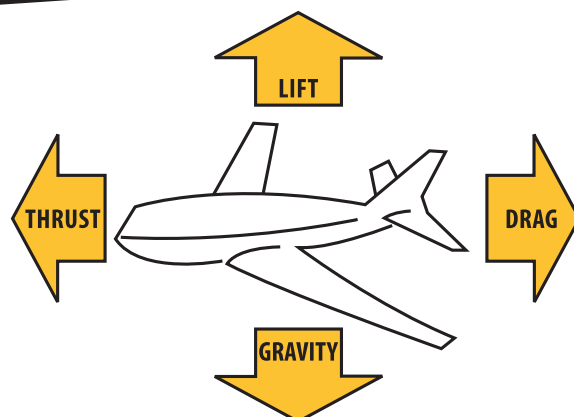
\_\_\_\_\_

9. How much did the U.S. Army Signal Corps pay for a brand new airplane in 1909?

\_\_\_\_\_

# How Does An Airplane Fly?

SCIENCE



There are four forces that act on an airplane in flight: **thrust**, **drag**, **gravity**, and **lift**.

**Thrust** is the force that carries the airplane forward. It can be provided by the propeller or by jet propulsion

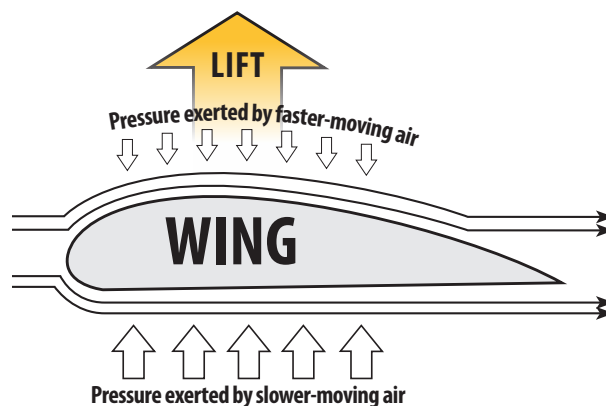
**Drag** is the force that resists the forward motion of the plane. The amount of drag that a plane has depends on its shape and surface.

The **gravity** that pulls downward on a plane is the force between the Earth and the plane. Gravity must be overcome before the plane can fly.

**Lift** is the force that overcomes gravity. It is caused by the motion of the air over and under the wings of an airplane. Lift can be produced in two ways—by the push of air against the slanted wing and by the **Bernoulli Effect**.

The **Bernoulli Effect** (seen below) is named for Daniel Bernoulli, the Swiss Mathematician who first described the phenomenon. The Bernoulli Principle says that swiftly moving air creates an area of low pressure.

## What Causes Lift?



How does this help to create lift? The air that flows over a curved airplane wing moves faster than the air beneath the wing. The air molecules spread apart and there is less pressure above the wing than there is below the wing. The result is that air pushes up against the wing and lifts it.

CONNECTION

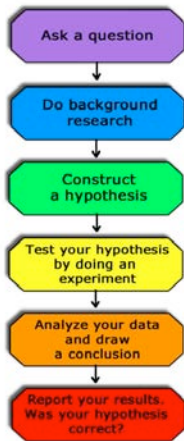
*Courtesy of Theatre IV Study Guide—page 2*



# How Does A Scientist Work?



## The Scientific Method



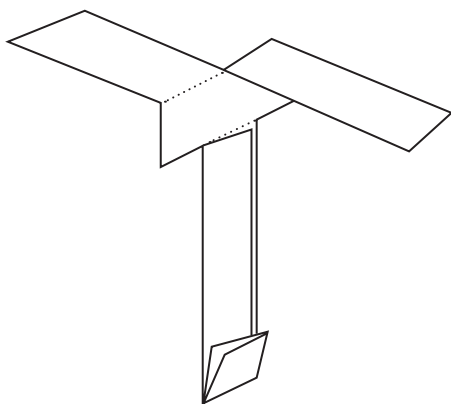
How did the Wright Brothers solve the problems that had stumped other would-be flyers for years? They succeeded because they were excellent scientists, whose work provided a great example of the scientific process.

Their great adventure began when they were just boys — curious about the toy flying machine called “the Alphonse Penaud helicoptre,” which was made of bamboo, paper, and cork. They examined the device closely and then made their own versions. They were already using two important parts of the scientific method — **observation** and **experimentation**.

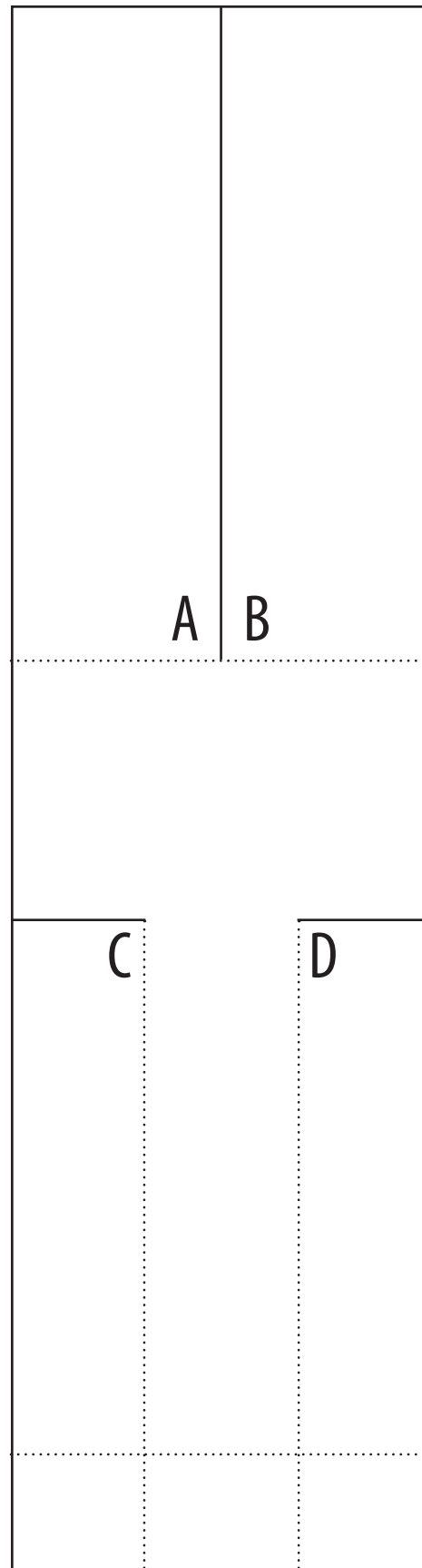
**You can follow the Wright Brothers’ example by making your own Penaud Helicopter, and devising a series of experiments.**

- Copy the pattern to the right onto stiff paper
- Cut along the solid lines
- Fold A forward
- Fold B backward
- Fold C forward
- Fold D backward.
- Bend the stem at E

The finished helicopter should look like the picture below.



**Conduct your own experiments!** Hold the stem upright and drop your helicopter from a high place. What happens when you reverse the direction of the flaps? What happens if you add a paperclip to the bottom of the helicopter to add weight? Add more paperclips and make a chart of your results.



CONNECTION

# The Sled Kite Activity



Tape

Tape straw here

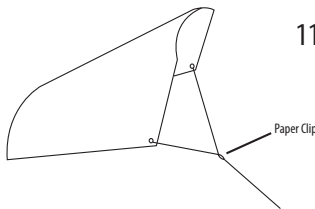
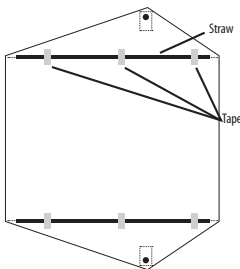
**The Wright Brothers built kites, then gliders, and finally a powered airplane. You too can construct and fly a simple sled kite! Then, demonstrate how to make the kite fly at varying heights.**

## MATERIALS NEEDED:

- Sled Kite Template
- Two drinking straws
- Tape
- Scissors
- String
- Metric ruler
- Single-hole paper puncher
- One paper clip
- Markers, crayons, pencils
- Selection of paper (crepe, tissue, newspaper)

## ACTIVITY INSTRUCTIONS

1. Make a copy of this Sled Kite Template on the largest paper available. Carefully cut out the kite.
2. Decorate the top of the sled kite using crayons, markers, or other media.
3. Trim the length of the two drinking straws so they will fit in the area marked for the straws. Tape them in place.
4. Place two or three pieces of tape in the marked areas covering the black circles.
5. Using a single-hole puncher, carefully punch two holes marked by the black circles.
6. Cut two pieces of kite string to connect through each hole.
7. Tie the opposite end of both strings to a paper clip.
8. Tie one end of piece of string to the other end of the paper clip. Your sled kite is ready to fly!
9. Outside in a clear area, hold the length of string and run with the kite to make it fly.
10. Run slow and run fast, and observe how the kite flies at different towing speeds.
11. Record observations on the "Sled Kite Flying Journal" page.



Tape straw here

Tape

# Sled Kite Flying Journal



Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Describe** today's weather, including wind speed and direction. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Predict** what will happen with your Sled Kite under the following circumstances:

When you *walk* with your Sled Kite. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

When you *run* with your Sled Kite. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Describe** what actually happened when you walked with your kite. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Describe** what actually happened when you ran with your kite. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Predict** what will happen to your kite if you add a tail. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Describe** how your kite flew with a tail. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Conduct** experiments by flying your kite with a longer tail and a shorter tail.

Describe what happened when you flew your kite with a longer tail and a shorter tail. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# First Flights: A Classroom Activity



Analyze and interpret data from the four flight trials of the Wright Brothers on December 17, 1903.

1. Use the data below and calculate the average speed of each flight trial.

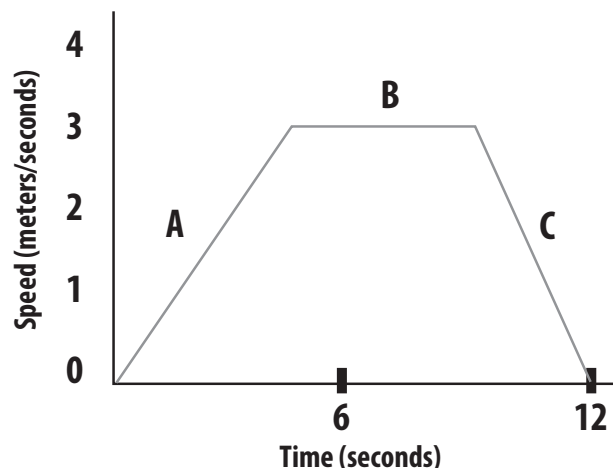
Speed=Distance/Time					
Flight	Distance (Meters)		Time (Seconds)	=	Average Speed (m/sec)
1	37	÷	12	=	_____
2	53	÷	12	=	_____
3	61	÷	15	=	_____
4	260	÷	59	÷	_____

- Make a graph comparing the average speed of the four trials. What factors might have influenced the flight of the plane and caused such different speeds?
- Analyze the graph "Speed vs. Time" below. Identify the events that occurred in sections A, B, and C of the graph. Write a paragraph about what happened during the flight.

## EXTENSIONS:

- The wind speed at Kitty Hawk was up to 12 meters/second and the speed of the machine on the ground against the wind was 3.05 meters per second. What would have been the speed of the machine in calm air? How far would it have traveled during the first flight with calm winds?
- The flight speeds were not as constant as the data might indicate. Instead there were control problems and erratic speeds. Investigate how the Wright Brothers solved these problems in later airplane designs.
- Depending on the experience of your students, use the graph "Speed vs. Time" as a model to create a graph that shows the changes in acceleration to the Wright Flyer during the flight.

This graph represents a mathematical method of how the Wright Brothers' first flight may have happened.



CREATIVITY





# Finding Balance

SCIENCE

MATH

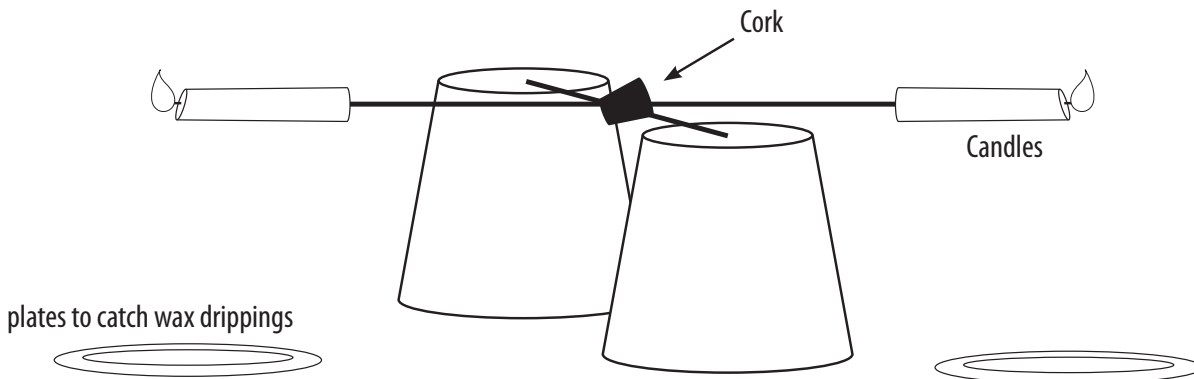
GRADES  
6-8

Orville and Wilbur's experiences in their bike shop primed them for the invention of the airplane. **Why?** They understood that both bikes and airplanes needed to be balanced, and the rider's (or pilot's) center of gravity must align with the machine's center of gravity.

This activity will demonstrate the relationship of an object's weight with the object's center of gravity. You will need:

- Darning Needle
- Knitting needle
- Cork
- 2 Cups
- 2 candles
- 2 Plates to catch wax drippings

Push the knitting needle through the width of the cork. Push the same knitting needle through a candle lengthwise, starting at the bottom of the candle. Using a different candle of equal size, repeat this procedure through the other end of the knitting needle. Then, push a darning needle lengthwise through the cork and place the needle on the tops of 2 cups. The two candles should resemble a seesaw. Move the candles up and down the needle until the two sides are balanced.



1. Predict what will happen if you light the ends of the seesaw candles. \_\_\_\_\_

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2. Light the candles. Record your observations here: \_\_\_\_\_

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3. How does this relate to how a person rides a bicycle? \_\_\_\_\_

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4. How is the center of gravity important in building an airplane? On a separate sheet of paper, draw an illustration depicting the center of gravity on an airplane.

CREATIVITY

# In Your Neighborhood

SOCIAL  
STUDIES



RECOMMENDED RESOURCES

**THE DAYTON AVIATION TRAIL** is a self-guided tour of selected, aviation-related sites that are open to the public. The Trail was established in 1981 by Aviation Trail, Inc., an all-volunteer organization whose mission is to preserve and promote Dayton's unique aviation heritage, starting with the invention of the airplane by Wilbur and Orville Wright. That heritage continues on to today's aerospace projects of the future now under development at Wright- Patterson Air Force Base.

In 1982 Aviation Trail, Inc. acquired two historic Wright Brothers' buildings that are still standing on their original sites in Dayton's West Side neighborhood: the Hoover Block and The Wright Cycle Company building. These eventually became the cornerstone of the Dayton Aviation Heritage National Historical Park, a park of four sites managed by the National Park Service. In total the Dayton Aviation Trail consists of 14 unique historical sites.

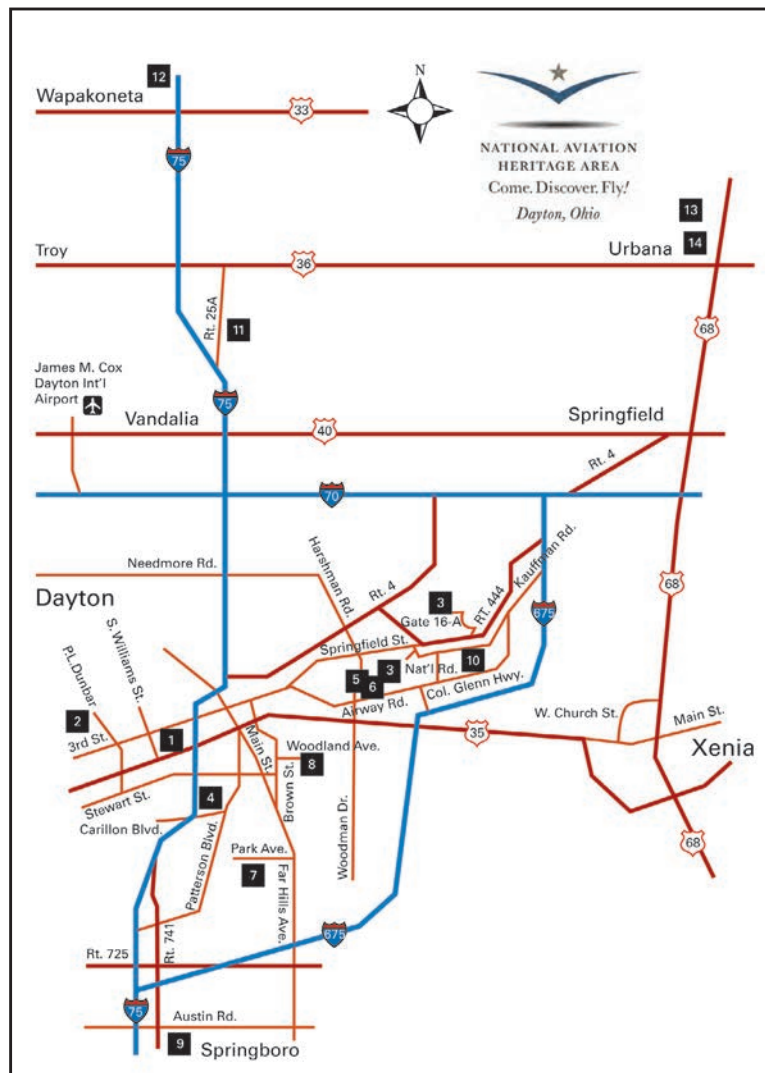
1. Wright-Dunbar Interpretive Center and Wright Cycle Company
2. Paul Laurence Dunbar State Memorial
3. Huffman Prairie Flying Field Interpretive Center and Dayton Aviation Heritage National Historical Center
4. John W. Berry, Sr. Wright Brothers Aviation Center at Carillon Historical Park
5. National Museum of the United States Air Force
6. National Aviation Hall of Fame
7. Hawthorn Hill
8. Historic Woodland Cemetery and Arboretum
9. The Wright "B" Flyer
10. Wright State University Special Collections and Archives
11. Historic WACO Field and WACO Airplane Museum
12. Armstrong Air and Space Museum
13. Champaign Aviation Museum
14. Grimes Flying Lab

**For more information  
about the Aviation Trail contact:**

**Aviation Trail, Inc.  
P.O. Box 633, Wright Brothers Branch  
Dayton, Ohio 45409**

**937-443-0793**

**[www.aviationtrailinc.org](http://www.aviationtrailinc.org)**



# Victoria Fuse's Local Resource



RECOMMENDED RESOURCES



## THE NATIONAL MUSEUM OF THE UNITED STATES AIR FORCE

**MUSEUM LOCATION**  
1100 Spaatz Street  
Wright-Patterson AFB, OH 45433  
(937) 255-3286

**MUSEUM HOURS**  
Open daily 9 a.m.-5 p.m.  
Closed Thanksgiving, Christmas Day  
and New Year's Day  
FREE admission!

<http://www.nationalmuseum.af.mil/index.asp>



Welcome to the National Museum of the United States Air Force – the oldest and largest military aviation museum in the world – located at Wright-Patterson Air Force Base, near Dayton, Ohio. The National Museum of the United States Air Force collects, researches, conserves, interprets and presents the Air Force's history, heritage and traditions, as well as today's mission to fly, fight and win ... in Air, Space and Cyberspace to a global audience through engaging exhibits, educational outreach, special programs, and the stewardship of the national historic collection. These statutory duties delegated by the Secretary of the Air Force are accomplished on behalf of the American people. We are the keepers of their stories.



## Did You Know?

If you visit at least 7 of the 16 Aviation Sites listed on page 14, you will receive a free "Willbear Wright" Aviation Teddy Bear courtesy of the National Park Service!

For more information, and to download you Teddy Bear-Passport, visit <http://www.aviationtrailinc.org>



## Publications for Students:

*Who Were the Wright Brothers?*, Written by James Buckley, Jr. and Illustrated by Tim Foley and Nancy Harrison. Grosset & Dunlap: 2014.

*The Wright Brothers: Inventors Whose Ideas Really Took Flight*, Written by Mike Venezia. Childrens Press: 2010.

*Flyer: A Tale of the Wright Dog*, Written by Suzanne Tate. Nags Head Art, Inc.: 2003.

*Wilbur and Orville Wright: Young Fliers (Childhood of Famous Americans)*, Written by Augusta Stevenson. Aladdin Books: 1986.

*The World Record Paper Airplane Book*, Written by Ken Blackburn and Jeff Lammers. Workman Publishing Company: 2006.

*The Wright Brothers for Kids: How They Invented the Airplane; 21 Activities Exploring the Science and History of Flight*, Written by Mary Kay Carson. Chicago Review Press: 2003.

*Can You Fly High, Wright Brothers?*, Written by Melvin and Gilda Berger. Scholastic Nonfiction: 2007.

## Publications for Teachers and Parents

*Grand Eccentrics: Turning the Century—Dayton and the Inventing of America*, Written by Mark Bernstein. Orange Frazer Press: 1996.

*How Ohio Helped Invent the World: From the Airplane to the Yo-Yo*, Written by Curt Dalton. CreateSpace Independent Publishing Platform: 2013.

*A Field Guide to Flight: On the Aviation Trail in Dayton, Ohio*, Written by Mary Ann Johnson. Landfall Press: 1996.

*The Wright Brothers*, Written by David McCullough. Simon & Schuster: 2016

## Wesites

**[www.daytonhistory.org](http://www.daytonhistory.org)**: The Carillon Historical Park in Dayton, Ohio, has one of the premier collections relating to Dayton's own Wright brothers, including the original 1905 Wright Flyer III. The only airplane designated a National Historic Landmark, the 1905 Flyer is the world's first practical airplane, and is considered by many to be the most significant airplane still in existence. In the fall of 1905 Wilbur and Orville Wright piloted this airplane in record breaking flights at the Huffman Prairie Flying Field just outside of Dayton, Ohio.

**[www.nps.gov/daav/index.htm](http://www.nps.gov/daav/index.htm)**: The National Park Service has dedicated many sites in Dayton to be National Historic Landmarks. You can visit the Wright Memorial, the Wright Cycle Company Building, Huffman Prairie Flying Field, and Hawthorne Hill.

**[www.nationalmuseum.af.mil/](http://www.nationalmuseum.af.mil/)**: The National Museum of the United States Air Force is open year-round and is always free to visit. The Early Years Gallery combines exhibits and artifacts that capture the spirit of the Wright Brothers' imagination, and the important role they played in the history of US aviation leading up to WWII.

**[wrightbrothers.info/index.php](http://wrightbrothers.info/index.php)**: This website is controlled by the Wright Family Fund and contains a gallery of photos, quotes, and biographies featuring Orville and Wilbur Wright.

**[education.nasa.gov](http://education.nasa.gov)**: NASA's Education Home Page serves as the education portal for information regarding education programs and services offered by NASA for the American education community. This high-level directory of information provides specific details and points of contact for all of NASA's education efforts, Field Center offices, and points of present within each State.



RECOMMENDED RESOURCES

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**VICTORIA THEATRE**  
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138 North Main Street  
Dayton, OH 45402



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**CARILLON HISTORICAL PARK**

• A DAYTON HISTORY EXPERIENCE •

1000 Carillon Blvd  
Dayton, OH 45409  
937-293-2841

**MUSEUM HOURS:**  
Monday – Saturday: 9:30 a.m. – 5:00 p.m.  
Sundays: 12:00 p.m – 5:00 p.m.

Carillon Historical Park's beautiful 65-acre campus features many one-of-a-kind aspects, and one of the main attractions is The John W. Berry Sr. Wright Brothers Aviation Center which has more Wright artifacts on display than any place in the world, including the 1905 Wright Flyer III—the only airplane designated a National Historic Landmark, the world's first practical flying machine, and what the Wright brothers considered their most important aircraft. Adjacent to Wright Hall is Carillon Historical Park's Wright bicycle shop—a replica of Wilbur and Orville's fifth and final store at 1127 W. Third St. in West Dayton. In 1936, with Orville's endorsement, Henry Ford purchased the original building, and in 1938, it was moved from 1127 W. Third Street and dedicated at Greenfield Village at The Henry Ford Museum in Dearborn, Michigan. Carillon Park's cycle shop resembles how the Wright brothers' store would have appeared between mid-October—mid-December 1901.

For more information, visit <https://www.daytonhistory.org/>.

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