# THE WRIGHT BROTHERS

by Mel Abelin





#### **STRATEGIES & SKILLS**

#### Comprehension

**Strategy:** Ask and Answer Questions **Skill:** Problem and Solution

#### Vocabulary

began, better, guess, idea, learn, right, sure, unusual

#### Phonics

*r*-controlled vowels *or*, *oar*, *ore* 

#### Content Standards Social Studies

American History

Word count: 550\*\*

Photography Credit: Cover (bkgd) ICHIRO/Digital Vision/Getty Images, (I) Library of Congress Prints & Photographs Division [LC-DIG-ppmsca-00676 DLC], (r) Library of Congress Prints & Photographs Division [LC-DIG-ppmsca-08396], (b) Science & Society Picture Library/Getty Images

\*\*The total word count is based on words in the running text and headings only. Numerals and words in captions, labels, diagrams, charts, and sidebars are not included.



Copyright © The McGraw-Hill Companies, Inc.

All rights reserved. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of The McGraw-Hill Companies, Inc., including, but not limited to, network storage or transmission, or broadcast for distance learning.

Send all inquiries to: McGraw-Hill Education Two Penn Plaza New York, New York 10121

ISBN: 978-0-02-119641-8 MHID: 0-02-119641-9

Printed in the United States.

1 2 3 4 5 6 7 8 DOC 17 16 15 14 13 12

The **McGraw**·Hill Companies

## **GESS Genre** Biography



Essential Question What inventions do you know about?



by Mel Abelin

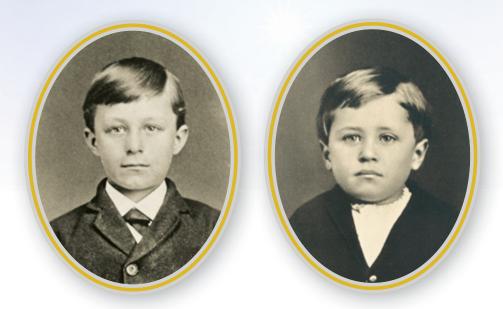
Chapter I Who Were the Wright Brothers? 2
Chapter 2 Jobs of the Wright Brothers
Chapter 3 Inventing the Airplane!
Respond to Reading II

**DEAD** Poetry: Fly Away, Butterfly ...12

Glossary/Index .		• •	•••		 	. 15
<b>STEM</b> Focus on	Science.				 	. 16



# Who Were the Wright Brothers?



Wilbur is on the left, and Orville is on the right.

Meet the two boys who flew the first airplane! Wilbur and Orville Wright were brothers. Wilbur was born first, in 1867. Orville was born in 1871. Orville and Wilbur grew up in Iowa, Indiana, and Ohio. Their father had a job that required the family to move from place to place. Orville and Wilbur loved to learn, think, and **create** in school and at home. Their dad encouraged them to be creative and to be good learners.

This is what schools looked like when the Wright brothers were children.



# Jobs of the Wright Brothers



The Wrights lived here while Wilbur was healing.

Wilbur liked to play hockey. In 1885, he got hurt while playing. It was a bad injury, and Wilbur had to rest for a long time. It took him three years to heal. To pass the time, he took care of his sick mom, helped his dad, and read. The accident forced Wilbur to give up his college dreams. Orville began working in a print shop. When Wilbur finally felt well, he joined his brother at the shop. They invented a better, more advanced printing press. Wilbur and Orville took on bigger printing jobs and were able to make more money.

Letters like these were used in printing presses.



Bicycles looked like this until the brothers built a bike similar to the one below.

After working at their printing shop, the brothers had another great idea. In 1896, they opened a bike shop, where they fixed and sold bicycles. The Wrights also built about 300 bicycles. Only five of those bikes still exist today. One of the bikes was a safer bike with two wheels that were the same size. This was unusual for that time. It looked like the bikes we ride today.



The brothers used the money they earned from the print and bike shops to begin their work with flight. Their dad had given the boys a flying toy when they were young. They had played with it all the time. The brothers studied how the toy was built and then built their own

flying toy. They had been interested in flight ever since.

Mr. Wright stands at the center of this family photo.

#### MRS. WRIGHT

Wilbur and Orville may have gotten their curiosity about how things work from their mother. As a girl, Mrs. Wright spent a lot of time in her father's carriage-making shop. As an adult, she built simple household items. She even made toys for her children.

# CHAPTER 3

Inventing the Airplane!



This was the brothers' third glider.

The Wright brothers were sure they could build a flying machine. First, they needed to guess how to do it. Then they had to test their ideas many times before they thought they got it right. They used model wings and wind tunnels and tested more than 200 wing models. In 1902, they built their third glider. The Wright brothers made nearly 1,000 glides with the 1902 glider. It soared nearly 600 feet! In 1903, the Wrights tested their first airplane. They were in Kitty Hawk, North Carolina. The beachfront area was the best place for testing flight.

Orville took the first flight. He soared through the air for I2 seconds, and the plane went I20 feet. Flight had begun!

The Wrights continued to test airplanes at a field near Dayton, Ohio, in 1904 and 1905. During one test, they flew 24.2 miles in 38 minutes!

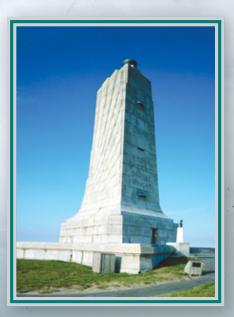
THOUGHTS OF FLYING Early kites got people thinking about how humans could fly. This interest led to other inventions, including hot air balloons and gliders.

9

In 1908, the brothers built the first airplane for the United States Army.

The brothers worked with flight until they died. Wilbur got sick and died in 1912. Orville died in 1948.

In 1928, there was a special **event** to **honor** the Wright brothers. On a beach in North Carolina, a **monument** stands at the exact location of the first flight.



Wilbur and others watched Orville take flight.



#### Retell

Use the chart to help you retell *The Wright Brothers.* 



#### **Text Evidence**

- I. Read page 4. How did Wilbur pass the time when he got hurt? Problem and Solution
- Read pages 8–9. The brothers needed to test their flying machines. How did they do this?
   Problem and Solution
- 3. Is *The Wright Brothers* fiction or nonfiction? How can you tell? Genre

# Fly Asway Butterfly

## **GESS Genre** Poetry

#### **Compare Texts**

Read about how butterflies are similar to planes.

Fly, fly away In the big, bright, beautiful sky. Soar and sway, Fly away, butterfly! Fly, fly away To the daisies and the daffodils. It's a sunny spring day, Fly away, butterfly!



Make Connections How are butterflies and planes alike? Text to Text

### Glossary

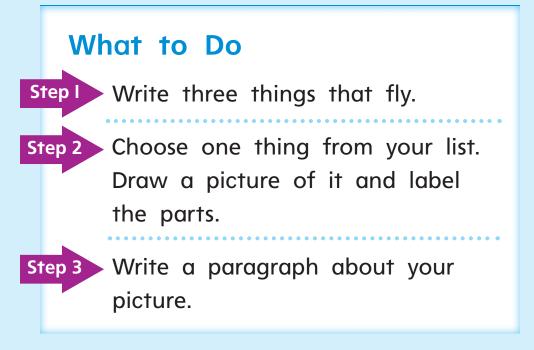
- create (kree-AYT) to make something
   (page 3)
- event (*i-VENT*) something interesting that occurs (page 10)
- honor (ON-ur) to give praise or have respect for someone (page 10)
- injury (IN-juh-ree) hurt or harm
  (page 4)
- monument (MON-yew-muhnt) a
  statue or building to remind people
  of an event (page 10)

### Index

airplane, *2, 9, 10* bicycles, *6* glider, *8, 9* Kitty Hawk, North Carolina, *9*  Orville Wright, *2, 3, 5,* 9, 10 Wilbur Wright, *2, 3, 4,* 5, 10



**Purpose** To learn about things that fly



**Conclusion** Share your picture and paragraph with the class.

# Nonfiction Thinkmark

# The Topic

What is *The Wright Brothers* mostly about?

## **Text Structure**

How does the author organize information in *The Wright Brothers*? Why did the event honoring the Wright brothers come last in the book?

## **Make Connections**

How is *The Wright Brothers* like other biographies you have read? How does the first airplane compare to airplanes today?