

The Amazing Flying Machine



first successful flight by the Wright brothers

More than one hundred years ago, two brothers stood on a sand dune at Kitty Hawk, North Carolina. Nearby was a big, odd-looking machine they had built. The brothers were Orville and Wilbur Wright. The machine was the world's first powered airplane.

Today, that amazing flying machine is on display at the National Air and Space Museum in Washington, D.C. The museum has the largest collection of historic aircraft and spacecraft in the world.

A new exhibit at the museum marks the 100th anniversary of the Wright brothers' famous flight.

The Wright brothers' flying machine looks something like a box kite with an engine. But it made all future flight possible.

Wheels to Wings

In 1896, the Wright brothers made bicycles in Dayton, Ohio. But they dreamed of wings, not wheels.

At that time, the only way to fly was in a basket under a hot-air balloon. Not many people did so, as the balloons were hard to control.

Orville and Wilbur set out to build a machine that could fly. It would have glider-type wings and an engine.

Designing and building the flying machine took years. When it was finally ready, bad weather set in. The Wrights had to wait months to test their invention.

Flying was a dangerous mission. Other people had died trying to fly. On December 17, 1903, however, the Wright brothers were ready to take their chances.

Orville was the machine's first pilot. His flight lasted only 12 seconds. The flyer traveled just 120 feet and landed with a thud. The flight was short but very sweet. It proved that humans could fly.

Orville and Wilbur made four flights that day. They took turns as pilots. Wilbur made the longest flight. He flew for 59 seconds and went a distance of 852 feet.

Roll, Pitch, and Yaw

The Wright brothers' invention began the age of flight. Their machine was important not only because it flew, but because it could be controlled in the air.

The Wrights could control their craft in three important ways—roll, pitch, and yaw. They could *roll* the wings right or left. They could *pitch* the plane's nose up or down. And they could yaw the nose from side to side.

Being able to control the plane in those three ways made all the difference. All pilots use those same controls when flying today.

To the Stars

After the Wright brothers' success, flying really took off.

In May 1927, Charles Lindbergh flew a small, one-seater plane across the Atlantic Ocean. He was the first person to do such a feat alone.

That plane, the *Spirit of St. Louis*, can be seen at the Air and Space Museum.

The museum also displays a jet named *Glamorous Glennis*. Its pilot was Chuck Yeager. In October 1947, Yeager flew the plane 700 miles per hour. It was the first plane to fly faster than the speed of sound. With jets, humankind pushed toward the edge of space and beyond!

In 1962, John Glenn became the first man to orbit Earth. He flew in the Mercury *Friendship 7* space capsule. That tiny craft is now at the museum. The craft that first flew men to the moon is there, too.

For the Wright brothers, flight was an amazing adventure. Today, the adventure goes on. In the past hundred years, human flight has soared from Kitty Hawk to the moon!

Name: _____ Date: _____

1. Based on the text, who was the first to fly faster than the speed of sound?

- A. Orville Wright
- B. Chuck Yeager
- C. John Glenn
- D. Charles Lindbergh

2. Which of the following does the author describe last in the text?

- A. Orville and Wilbur Wright's work making bicycles
- B. other men who achieved firsts in flight
- C. the flying machine designed by Orville and Wilbur Wright
- D. Orville and Wilbur Wright's first flight

3. The Wright brothers contributed significantly to the mechanics of flight today.

What evidence from the text supports this conclusion?

- A. "Designing and building the flying machine took years. When it was finally ready, bad weather set in. The Wrights had to wait months to test their invention."
- B. "The Wright brothers' invention began the age of flight. Their machine was important not only because it flew, but because it could be controlled in the air."
- C. "For the Wright brothers, flight was an amazing adventure. Today, the adventure goes on. In the past hundred years, human flight has soared from Kitty Hawk to the moon!"
- D. "The Wrights could control their craft in three important ways-roll, pitch, and yaw. . . . Being able to control the plane in those three ways made all the difference. All pilots use those same controls when flying today."

4. Based on the text, why is the Wright brothers' flying machine displayed at the National Air and Space Museum?

- A. The Wright brothers' flying machine is an important part of the history of flight in the United States.
- B. The Wright brothers' flying machine was better than flying in a basket under a hot-air balloon
- C. The Wright brothers' flying machine was the first machine to fly across the Atlantic Ocean
- D. The Wright brothers' flying machine can be controlled in three important ways

5. What would be another good title for this text?

- A. Bicycles, Hot Air Balloons, and Flying Machines
- B. The Wright Brothers Take Flight
- C. How to Build a Flying Machine
- D. Flying Across the Atlantic Ocean

6. Read this sentence from the text.

In 1962, John Glenn became the first man to **orbit** Earth.

As used in the sentence, what does the word "**orbit**" mean?

- A. display
- B. leave
- C. circle
- D. fly near

7. Choose the answer that best completes the sentence.

The Wright brothers originally made bicycles, _____ they really wanted to build a flying machine.

- A. and
- B. but
- C. because
- D. so

8. According to the text, what was the only way to fly before the Wright brothers invented a flying machine?

9. Based on the text, why does the author describe Orville's flight as "short but very sweet"? Use evidence from the text to support your answer.