



## **THE WRIGHT BROTHERS**

### **A READ WRITE & RIDE LESSON**

Did you know that the airplane was invented by two men who owned a bicycle shop? It's true. Wilbur and Orville Wright were brothers. They invented and built the first successful airplane.

How did they do it?

During the 1800s, most people used their feet to take them wherever they needed to go. They simply walked. Horses were another common way to travel on land. People could ride on horseback or use a horse to pull a vehicle like a cart or wagon. There were also trains. People mostly used trains if they needed to travel longer distances. There were very few cars back then. In fact, you would hardly think they looked like cars if you saw pictures of them. There were no airplanes. Airplanes had not been invented yet.

In the late 1800s, bicycles became a very popular way for people to get around. Wilbur and Orville Wright lived in Dayton, Ohio. The two brothers owned a bicycle shop. They sold and repaired bicycles. They also used the bicycle shop to work on their design for a flying machine.

People have always been fascinated with flying. Many people thought it would be impossible for man to fly. Some people had worked on designs for a flying machine. No one had figured out the problems of flight.

The Wright brothers had learned a lot about bicycles and machines. They used the things they had learned and applied them to flight.

They knew that one of the most important things about a bicycle is that a rider must be able to control it. They knew that this would also be true for a flying machine. A person would have to be able to control it.

Wilbur and Orville tinkered and tested in their shop. In 1899, Wilbur had an idea that he thought might work for controlling a flying machine. The brothers wanted to test the idea to see if it would work. They built a large kite of wood and fabric. The kite had

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cords attached to it. The person flying the kite on the ground could use the cords to move the wings. The early kite experiment was a success. The kite could be controlled. So far so good, but it was just a kite.

They needed to try Wilbur's idea on something larger. In 1900, they used wood, fabric, and wire to make a glider. A glider is an aircraft without an engine that flies by riding air currents. They wanted to test the glider in a place that was breezy and had a surface that could provide for soft landings. They thought a beach would be a smart place to do their tests. They chose Kitty Hawk, North Carolina.

For the next few years, they did many glider tests in Kitty Hawk. At the beginning, men stood on the ground and held the glider by ropes. The brothers tinkered and tested some more. Sometimes they would change the shape or construction of the glider. Other times, they would change the controls they had made. Finally, they had a glider they thought they could get on and fly. Some attempts were better than others. Each attempt got them closer to their goal.

The Wright brothers returned to Kitty Hawk in 1903. This time their flying machine had an engine. They had built the engine from scratch in their shop back in Dayton, Ohio. They called their new flying machine simply the Flyer.

In December 1903, the brothers made four short flights with the Flyer. They had achieved their goal. They had designed the first powered machine that a pilot could control. Humans could fly!

The Wright brothers' basic design for the Flyer is still used to make today's airplanes.

It all started in a bicycle shop.