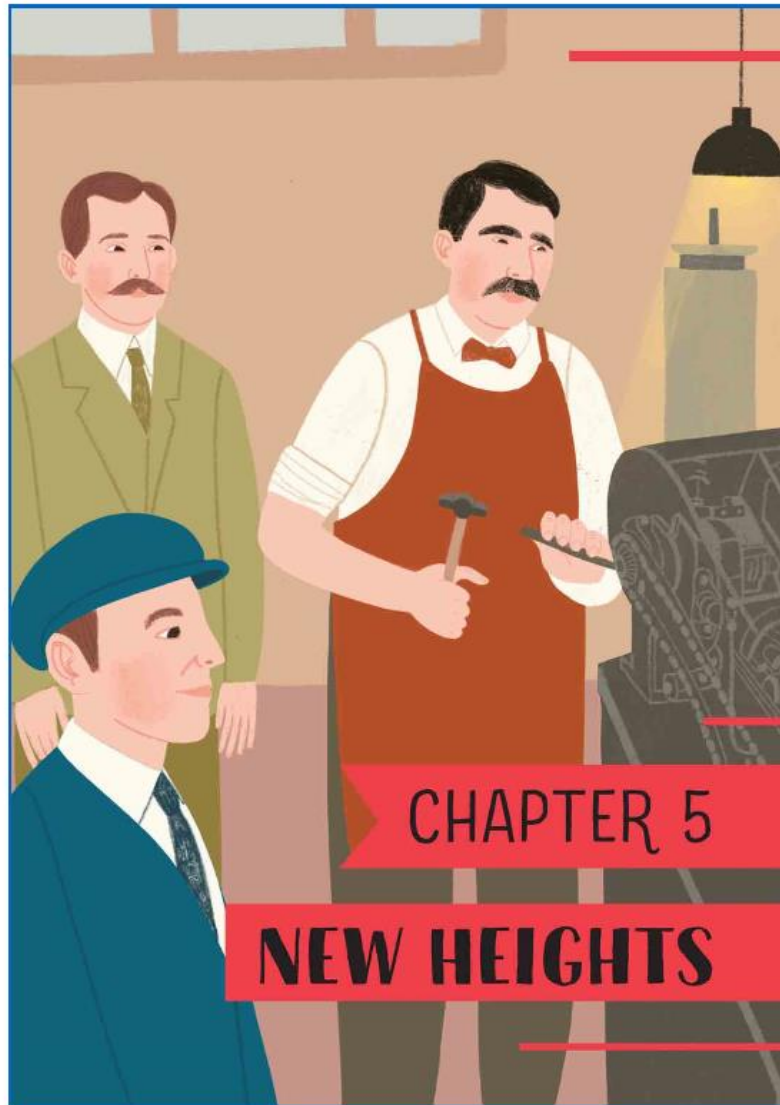
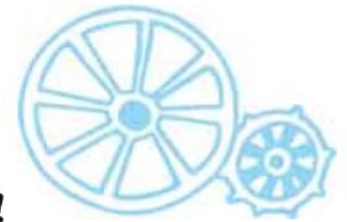




It's a Plane!



Wilbur and Orville knew they'd made history in Kitty Hawk in 1902. They had controlled the glider in flight. No other **pilot** had ever done that. Next, they wanted to fly a powered airplane. No one had a motor that was both small enough and powerful enough. Wilbur and Orville would have to make their own. They didn't know enough about motors, but they knew who to ask for help.

Charlie Taylor already worked at the Wright Cycle Company as a mechanic. At the brothers' request, Charlie designed a motor. It was small *and* powerful.

Wilbur and Orville filled five notebooks with math and drawings for their new aircraft. They built it out of wood and called it the *Wright Flyer*. The motor made it heavy—around 600 pounds! To lift all that weight, the airplane needed bigger wings than their previous gliders. The *Flyer's* wings were 40 feet, 4 inches wide. The brothers covered the wings

with fabric like the earlier gliders.

Wilbur and Orville were the first aviators to add a **propeller** to an airplane. Propellers are like twisted wings that spin. Only boats had used them before. The *Flyer* had two wooden propellers, each eight feet long. With the propellers, wings, and motor, the *Flyer* would have enough lift and thrust to fly. The Wright brothers were ready to test the *Flyer*.



The First Flight



The brothers returned to Kitty Hawk, North Carolina, in September 1903. They made a 60-foot track so the *Wright Flyer* could have firm ground to gain speed. They called the track “Grand Junction Railroad.”

JUMP –IN THE– THINK TANK

The brothers kept track of the testing so they could see what worked best. How can you keep track of new things you try?

Three months later, Wilbur and Orville were ready to fly. They tossed a coin to see who would pilot the *Flyer* first. Wilbur won. He got in and took off. The *Flyer* jerked up and down. It was in the air for 3.5 seconds . . . then the motor stopped and crashed into the sand. But the brothers were excited. They knew exactly what went wrong and how to fix it. They repaired the *Flyer* and waited for good weather. Three days later, they tried again.

The wind blew hard on the cold morning of December

17, 1903. It was Orville’s turn to pilot the *Flyer*. The brothers shook hands. Orville lifted off the track at 10:35 a.m. For the *Flyer*’s first real flight, he stayed in the air for 12 seconds. The flight was rough. Orville went up and down. But he flew for 120 feet!



The Wright brothers took turns flying. The *Wright Flyer* flew four times that day. The longest flight was 50 seconds long.

The men were talking about flying again when a gust of

wind blew. The wind slammed the airplane into the sand.
The *Wright Flyer* never flew again.



Still, Wilbur and Orville had to share the big news about their flights. Orville sent a **telegram** home. It began, “SUCCESS FOUR FLIGHTS THURSDAY MORNING . . .” Wilbur and Orville Wright’s airplane **invention** would change their lives—and the world.

WHEN

1903

Wilbur and Orville fly the *Wright Flyer*.

MYTH

The first airplane was expensive.

&

FACT

For materials and travel, the Wrights had spent less than \$1,000 by 1903.