Name: _____ Date: _____

The First Airplane Flight

Circle group

For a long time, people watched birds and wished to fly. Two brothers, Wilbur and Orville Wright, made up their minds to try. They ran a bike shop in Ohio. They built flying machines in their free time.

The brothers looked at how birds twist their wings to turn. They built a small wind tunnel to test wing shapes. They built a light engine too. No engine they could buy was small enough.

In December of 1903, they took their plane, the Flyer, to a windy beach near Kitty Hawk, North Carolina. On the morning of December 17, Orville lay on the low wing. The Flyer rose off the ground! The flight lasted just twelve seconds. It went about 120 feet. It was the first time a machine with a person on board flew by its own power.

The brothers made three more flights that day. The longest lasted close to a minute. Now planes carry millions of people each day. It all began with two brothers and a bike shop.

Questions

1. What kind of shop did the Wright brothers run?

_____

_____

2. Why did they build their own engine?

_____

_____

3. Where and when was the first flight?

_____

_____

4. How did watching birds help the brothers?

_____

_____

5. The flight lasted only twelve seconds. Why was it still a big deal?

_____

_____

Words to know

wind tunnel: a box that blows air over a model so builders can test its shape
engine: a machine that makes things move
twist: to turn one end of something while the other end stays still

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

The First Airplane Flight

Triangle group

For a very long time, people watched birds and wished they could fly. Two brothers named Wilbur and Orville Wright decided to try. They ran a bicycle shop in Ohio. They built their flying machines in their spare time.

The brothers studied how birds twist their wings to turn. They built a small wind tunnel to test wing shapes. They also built a light engine, because no engine they could buy was small enough.

In December of 1903, the brothers took their airplane, the Flyer, to a windy beach near Kitty Hawk, North Carolina. On the morning of December 17, Orville lay on the lower wing. The Flyer rose off the ground. The flight lasted only twelve seconds and went about 120 feet. It was the first time a machine with a person aboard had flown by its own power.

The brothers made three more flights that day. The longest lasted almost a minute. Today, planes carry millions of people through the sky every day. It all began with two brothers and a bicycle shop.

Questions

1. What kind of shop did the Wright brothers run?

_____

_____

2. Why did they build their own engine?

_____

_____

3. Where and when did the first flight happen?

_____

_____

4. How did studying birds help the brothers?

_____

_____

5. Why was a flight of only twelve seconds still a big moment in history?

_____

_____

Words to know

wind tunnel: a box that blows air over a model so builders can test its shape
engine: a machine that makes things move
twist: to turn one end of something while the other end stays still
airplane: a machine with wings that flies through the air
spare time: free time when you are not working

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

The First Airplane Flight

Square group

For centuries, people observed birds soaring overhead and wished that they, too, could fly. Two brothers named Wilbur and Orville Wright decided to attempt it. They operated a bicycle shop in Ohio and constructed their flying machines in their spare time.

The brothers carefully studied how birds twist their wings in order to turn. They built a small wind tunnel to test different wing shapes. They also designed and built a lightweight engine, because no engine available for purchase was small enough.

In December of 1903, the brothers transported their airplane, called the Flyer, to a windy beach near Kitty Hawk, North Carolina. On the morning of December 17, Orville stretched out on the lower wing, and the Flyer lifted off the ground. The flight lasted only twelve seconds and covered about 120 feet. Nevertheless, it was the first time a machine carrying a person had flown under its own power.

The brothers completed three additional flights that day, and the longest lasted almost a minute. Today, airplanes carry millions of passengers through the sky every day. Remarkably, it all began with two brothers and a bicycle shop.

Questions

1. What kind of business did the Wright brothers operate?

_____

_____

2. Why did the brothers design and build their own engine?

_____

_____

3. Where and on what date did the first flight take place?

_____

_____

4. In what way did studying birds contribute to the brothers' success?

_____

_____

5. Why was a flight of only twelve seconds still a historic achievement?

_____

_____

Words to know

wind tunnel: a box that blows air over a model so builders can test its shape
engine: a machine that makes things move
twist: to turn one end of something while the other end stays still
airplane: a machine with wings that flies through the air
spare time: free time when you are not working

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: The First Airplane Flight

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: The First Airplane Flight

Easier · 168 words · Flesch-Kincaid grade 2.9

1. A bike shop.
2. No engine they could buy was small enough.
3. On a beach near Kitty Hawk, North Carolina, on December 17, 1903.
4. They saw that birds twist their wings to turn, and they used that idea.
5. It was the first time a machine with a person on board flew by its own power. It showed that people could fly.

Triangle: The First Airplane Flight

This passage · 172 words · Flesch-Kincaid grade 4.7

1. A bicycle shop.
2. No engine they could buy was small enough, so they built a light one.
3. On a beach near Kitty Hawk, North Carolina, on December 17, 1903.
4. They learned that birds twist their wings to turn, and they used that idea in their airplane.
5. It was the first time a machine with a person aboard had flown by its own power. It showed that flying was possible.

Square: The First Airplane Flight

Harder · 185 words · Flesch-Kincaid grade 8.3

1. A bicycle shop.
2. No engine available for purchase was small enough, so they built a lightweight one.
3. On a beach near Kitty Hawk, North Carolina, on December 17, 1903.
4. They learned that birds twist their wings to turn, and they applied that idea to their airplane.
5. It was the first time a machine carrying a person had flown under its own power. It proved that flight was possible.