

The Wright Brothers

Who Were the Wright Brothers?

Wilbur and Orville Wright were famous designers and inventors who grew up in Ohio, USA. Wilbur was born in 1867 and Orville was born years later in 1871. They are famous for being the first people to build and fly an aeroplane powered by an engine.

What Was Their Early Life Like?

Wilbur and Orville's father encouraged them to read lots of books and learn more about the world. He enjoyed thinking carefully about things and taught his children to do the same. Instead of going to university, Orville spent several summers learning the printing trade and, together, the brothers opened a printing shop. The brothers were well-known in their local area for the **printing presses** that they designed, built and sold. In 1892, the Wright brothers opened their own bicycle sales and repair shop. They used their profits from the shop to research flying machines.

Were the Wright Brothers the First People to Fly?

Before the Wright brothers, many people had explored different ways to fly. Leonardo Da Vinci was a famous artist who drew plans for flying machines in the 1700s. However, Da Vinci's machines were never built. Otto Lilienthal was a German inventor who designed and flew the first **glider**. He studied the way that birds flew and built gliders with similar wings. Otto was a great inspiration to the Wright brothers.

What Was the First Aeroplane Like?

Wilbur and Orville experimented with many different designs to try to make an aeroplane fly. They realised that the design of the wings was crucial to get the plane off the ground. They built wings with different lengths, shapes and tip designs to find out which would work the best. In 1903, they designed and built an aeroplane with wings, propellers and an engine. It also had rudder to help the pilot to steer. On 17th December 1903, the aeroplane flew for 12 seconds and there were five **spectators**.



What Happened after the First Flight?

After their first success, the brothers continued to build aeroplanes. By 1905, they had built an aeroplane that could fly for 39 minutes and it could even fly in circles. Wilbur and Orville became more successful while other people struggled to keep up with their designs. The brothers created aeroplanes for the US army that could fly for at least one hour with a pilot and a passenger. Years later, they opened a flight school in Ohio where pilots were trained. Modern designs of aeroplane wings are quite similar to their early sketches.

Glossary

glider	A light aircraft that flies without an engine.
printing press	A machine for printing text or pictures.
spectators	People who watch a show, game or event.



Reading Mission

30 mins

Children to read or be supported to read 'The Wright Brothers'.

After, they can answer these questions. These can be verbal answers or they could be written down or typed. Suggested answers are below.

1. Where did the Wright brothers grow up?

- New York
- Ohio
- Florida
- Texas

2. Who designed and flew the first glider?

- Orville Wright
- Leonardo Da Vinci
- Otto Lilienthal
- Wilbur Wright

3. Draw **four** lines and complete the sentence.

In 1892, the
brothers opened...

the brothers carried
on building aeroplanes.

After the first flight, ...

the wings
was important.

They realised that
the design of...

their own bicycle
repair shop.

By 1905, they had
built an aeroplane...

that could fly for
39 minutes.

4. What did the brothers' father encourage them to do?

- Join the church.
- Go to university.
- Play a lot of sports.
- Read lots of books.

5. Find and copy one phrase which shows that Otto Lilienthal was important to the brothers.

6. Fill in the missing words.

Wilbur and Orville became more _____ while other people
_____ to keep up with their designs.

7. Explain and compare the inventions of the Wright brothers and Otto Lilienthal.

8. Predict how flying machines might change in the future.

Answers

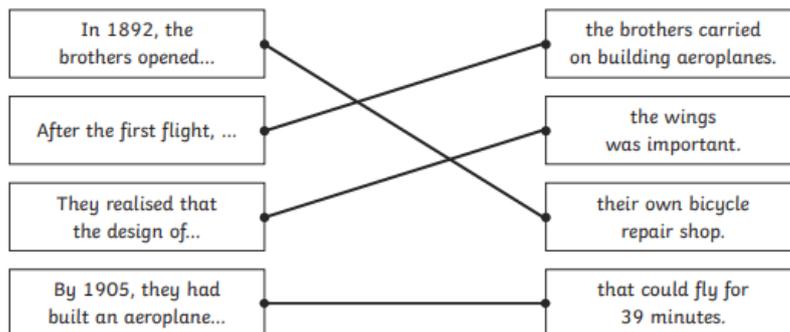
1. Where did the Wright brothers grow up?

- New York
- Ohio**
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2. Who designed and flew the first glider?

- Orville Wright
- Leonardo Da Vinci
- Otto Lilienthal**
- Wilbur Wright

3. Draw **four** lines and complete the sentence.



4. What did the brothers' father encourage them to do?

- Join the church.
- Go to university.
- Play a lot of sports.
- Read lots of books.**

5. Find and copy one phrase which shows that Otto Lilienthal was important to the brothers.

great inspiration

6. Fill in the missing words.

Wilbur and Orville became more **successful** while other people **struggled** to keep up with their designs.

7. Explain and compare the inventions of the Wright brothers and Otto Lilienthal.

Pupils' own responses, such as: Otto Lilienthal designed and built a glider. The Wright brothers designed and built an aeroplane. Gliders and aeroplanes are both flying machines. Otto's glider was light and had no engine whereas the Wright brothers' aeroplane had an engine.

8. Predict how flying machines might change in the future.

Pupils' own responses, such as: I think that people in the future will invent planes that use autopilot to fly and don't need pilots to fly them. They will be powered by renewable energy like solar power.

<p>Writing Mission 30 mins</p>	<p>We all explore new places at some point. For example, when you started school you explored the new school building. You may have a wood or park near you that you have explored during lockdown.</p> <p>Think of a place that you like to explore. Draw or paint a picture of that place. Around your picture write adjectives to describe the different things you saw. You will need these to help you with tomorrow's writing mission.</p> <p>Remember- Adjectives are words that describe.</p> <p>For example: Tree- tall, glorious, leafy, healthy</p>
<p>Maths Mission 30 mins</p>	<p>Starter- Practise counting in 3s and 4s.</p> <p>Today in maths we are going to recap division. Remember to solve division calculations you can use the written method of sharing dots between circles or you can use multiplication facts to find out how many times the number goes into the whole.</p> <ol style="list-style-type: none">1. $16 \div 2 =$2. $22 \div 2 =$3. $70 \div 10 =$4. $28 \div 4 =$5. $36 \div 3 =$6. $63 \div 9 =$7. $45 \div 5 =$8. $100 \div 10 =$9. $49 \div 7 =$10. $36 \div 6 =$

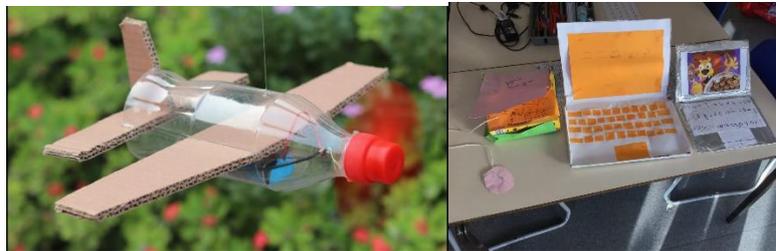
Answers

1. 8
2. 11
3. 7
4. 7
5. 12
6. 7
7. 9
8. 10
9. 7
10. 6

Topic Mission
Ideas for the week.
Choose activities
based on what
interests you.

D&T

Make a model of a great invention using items from around the house. For example, an aeroplane, a steam engine or a telephone.



Or...

Design your own invention. What will it do? How will it work? Make a model of your invention.

Watch 'How to be an inventor'

<https://www.youtube.com/watch?v=75okexRzWMk>

English/ Geography

Sir Edmund Hillary was an explorer and mountain climber. He was the first to climb to the top of Mount Everest with Sherpa Tenzing Norgay. A Sherpa is someone who carries objects up a mountain.

Can you find out some key facts about Edmund Hillary and Tenzing Norgay and their adventure to the top of Everest? Where is Mount Everest? How high is it?

Use these key facts to create a fact file or poster.

https://www.ducksters.com/biography/explorers/edmund_hillary.php

Geography

Explorers travel all over the world to discover new places. Can you find a country for each letter of the alphabet?

PSHE

Invent your own game to play with someone at home. Make sure you think about the rules and how the game is won.

Music and Drama

Plan an advertisement for your invention (see DT mission). You could create a song, dance or plan a short story to act out to help sell your product.

History

Research a famous inventor/scientist. You can choose how to present the information. You could create a leaflet, poster, fact file or even write a diary entry or story from the point of view of the inventor.

Here are some links to help you:

https://www.ducksters.com/biography/scientists/scientists_and_inventors.php

<https://kids.kiddle.co/Inventor>

Art

Imagine that you are an explorer looking for a new land. What would you hope to discover? Think about the landscape and animals that might be found there. Draw/paint the new land you would like to discover.

