

SCIENCE MUSEUM

GALLERY GUIDE

FLIGHT

INFORMATION



Ages **5-7**
7-11
11-14

Topic

FORCES

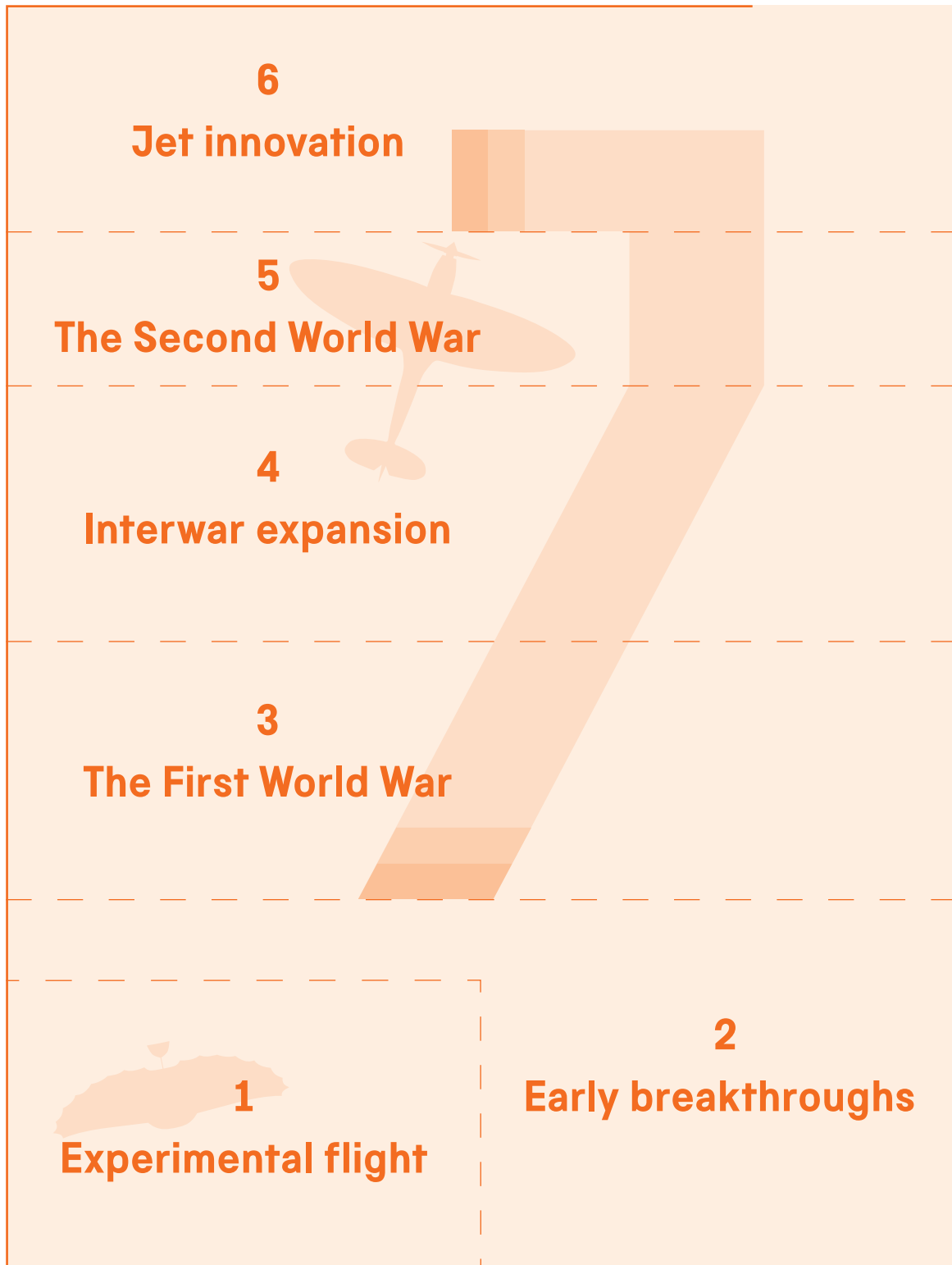
Location

LEVEL 3, SCIENCE MUSEUM, LONDON

***Flight* showcases the ideas and designs that have transformed our dreams into reality and allowed us to take to the sky.**

From daring early flying attempts to the aircraft many of us use every day, these objects explore how the materials and designs of aircraft have evolved over time. This gallery celebrates the inventors and pioneers who have helped shape the world of flight as we know it today.

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LIFT D

1 Experimental flight

For thousands of years, people have had visions of taking to the skies. Early attempts at flight involved jumping from towers using birdlike wings or being strapped to kites. Unfortunately, most of those trials led to injury or death.

Don't miss: Otto Lilienthal's glider

A pioneer of flight, Otto Lilienthal became known as the 'flying man'. Otto made over 2,000 test flights in gliders like this one he designed himself.

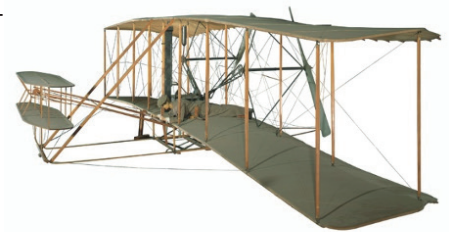


2 Early breakthroughs

As technology improved, powered flight went from being a dream to a reality. People started experimenting with different materials and designs, and the first aircraft was born. These inventions paved the way for flight as we know it today.

Don't miss: Wright Flyer, 1903 (replica)

The Wright brothers' invention was a breakthrough in the history of flight; it was the first successful, controlled powered flight by a human. It only lasted 12 seconds.



3 The First World War

By the First World War, aircraft were needed that were tougher, faster and stronger. New materials and more powerful engines meant that aeroplanes could fly faster and higher than ever before.

Don't miss: Royal Aircraft Factory SE5A, 1917

This plane was one of the fastest and most powerful fighter aircraft of The First World War. After the war it was converted to be used for skywriting.



4 Interwar expansion

Flying became a popular activity in the 1920s. People competed and showed off their skills in order to fly faster, further and higher. During this time, many record attempts for the longest and furthest flights were achieved.

Don't miss: Amy Johnson's de Havilland Gipsy Moth, 1928

In this plane Amy Johnson became the first female pilot to fly solo from Britain to Australia. She named it 'Jason' after her father's business trademark.



5 The Second World War

The Second World War brought many technological improvements that are still used in aircraft today. Radar and electronic navigation systems were invented, so planes could be more easily tracked. The end of the war saw the invention of the super-powerful jet engine.

Don't miss: Supermarine Spitfire Mk 1A, 1940

The Spitfire was the Royal Air Force's deadliest aircraft. Its design meant it could turn very quickly.



6 Jet innovation

As jet engines became more common, planes became more efficient and cheaper to run, and so air transport became accessible to many more people. It is now the main form of international travel, with millions of people flying every day.

Don't miss: Section of a Boeing 747, 1973

Nicknamed the 'Jumbo Jet', the Boeing 747 was the very first wide-bodied aircraft. This particular one made over 20,000 flights.



Think and talk about...



As you explore the gallery, think and talk about how the technology of flight is connected to our everyday lives. Use these questions as a starting point to inspire you to come up with more of your own:

- What interests you or surprises you about what you have seen in the gallery?
- If you could invent something to make you fly, what would it look like?
- What would life be like without aeroplanes?

Make the most of your visit

The gallery is designed to have the look and feel of a real aircraft hangar. Have a look inside a real aircraft cockpit, pretend to be air traffic control and walk along the mezzanine level, where you will come face to face with the aircraft near the ceiling. You will also find aircraft engines; have a look and see how they have changed over time.

Look out for Lucky Jim with some fun activities throughout the gallery.



Explore more...

Walk through tunnels to explore how air flows around an aeroplane and learn how the shape of aircraft helps them to fly in *Mathematics: The Winton Gallery* on level 2.

Experience forces in action by challenging your friends to see who can make the best flyer in *Wonderlab* on level 3.

Continue the experience back in the classroom and at home too. The Science Museum website features lots of hands-on activities which you can use to investigate the science in your world.