

Knowledge Organiser Year 2: How have humans conquered the air?

People

Montgolfier Brothers

Joseph-Michel (1740-1810) and Jacques-Etienne Montgolfier (1745-1799) invented the first hot air balloon which flew in 1783.



James Sadler

James Sadler (1753 – 1828) was the first English aeronaut to fly a hot air balloon in Christchurch Meadow In 1784.



Wright Brothers

Orville (1871 – 1948) and Wilbur Wright (1867 – 1912) were two American aviation pioneers who invented, built and flew the world's first successful aeroplane.



Amelia Earhart

Amelia Earhart (1897 – 1937) was the first female aviator to fly solo across the Atlantic Ocean in 1932.



UN Convention of the Rights of the Child

Article 12: You have the right to give your opinion, and for adults to listen and take it seriously.

Article 13: You have the right to find out things and share what you think with others.

Art: The Montgolfier Brother's Hot Air Balloon

The first hot air balloon was called 'Aerostat Reveillon'. It was named after Jean Baptiste Reveillon who was a friend of Etienne Montgolfier and a French wallpaper manufacturer.



Reveillon helped design the first ever hot air balloon which flew at a special demonstration for King Louis XVI. He designed a **motif** for the balloon. A motif is a decorative design that can be easily repeated.

He also included **important French royal symbols:**

- the king's cypher which is two interweaving Ls,
- the "fleur de lys",
- a representation of the sun.

RE: Leaders

A leader is someone who commands a group and who other people follow and respect. Examples include headteachers, prime ministers and team captains. Leaders in the Bible include Moses, Joseph and Noah.

Geography: Places and Landmarks

Continents: The earth is made up of 7 continents. These are North America, South America, Asia, Africa, Antarctica, Europe and Australia.



Oceans: There are 5 oceans on earth. They are the Atlantic, the Pacific, the Southern, the Arctic and the Indian Oceans.

United States of America (USA): a country in North America. It is made up of 50 states. Its capital city is Washington DC. New York is another famous city in the USA.

England: a country in Europe (where we live). Its capital city is London.

France: a country in Europe. Its capital city is Paris.

Italy: a country in Europe. The capital city is Rome. Venice is an important port in Italy and is known for its canals which are used instead of roads.



China: a country in Asia. The capital city of China is Beijing.

Australia: The capital city is Canberra. One of Australia's most famous landmarks is the Sydney Opera House in the city of Sydney.

Vocabulary	
air	An invisible mixture of gases that is all around us on Earth. All living things need air to survive.
force	A force is a push or pull on an object.
gravity	A force that pulls an object towards the centre of the Earth.
air resistance	The force of the air pushing against the object in the opposite direction to which it is moving.
aerodynamic	The qualities of an object that affects how easily it is able to move through the air.
flight	The action of flying through the air.
aeroplane	A powered flying vehicle with fixed wings.
propeller	Blades that turn around to move a boat or aircraft.
parachute	A cloth or canopy that fills with air and allows a person or object to fall slowly when dropped from an aircraft.
inflate	To fill with air or gas.
deflate	To let air or gas out of an object.
temperature	How hot or cold something is.
distance	The length of the space between two points.

19th September
1783



The first flight of a hot air balloon designed by Joseph and Etienne Montgolfier in Paris, France.

4th October
1784



The first balloon flight from Oxford, England with James Sadler piloting.

17th December
1903



Orville and Wilber Wright designed and flew the first aeroplane in N. Carolina, USA

20th May 1932



Amelia Earhart becomes the first woman to fly non-stop and solo across the Atlantic Ocean.

Science

Why do things fall to the ground?

An invisible force called gravity pulls things to the ground. Earth's gravity is what keeps you on the ground and is why things fall to the ground.

How do hot air balloons work?

Hot air rises.

A burner is used to heat the air inside the balloon.

As the air is heated inside the balloon it causes it to rise upwards because it is lighter than the cooler air on the outside.

When the burner is turned down, the air cools down and the balloon drops down slowly.



How do aeroplanes take off and stay in the sky?

A plane's engine is designed to move it forward at high speed. This makes air flow quickly over the wings, which moves air down towards the ground, creating an upward force called lift. This means it can stay up in the sky.



Feeling Curious? Links to more knowledge:

Flight Exhibition, Science Museum London

<https://www.sciencemuseum.org.uk/see-and-do/flight>

