

## Aircraft

WORKSHEET A

### Part A

1. In Greek mythology, which of these three men flew through the air?
  - a) Dumont
  - b) Icarus
  - c) Montgolfier
  
2. What is the slang name for the Boeing 747, a large passenger aircraft?
  - a) 'jumbo jet'
  - b) 'water wings'
  - c) 'Boeing balloon'
  
3. Which of these statements is true?
  - a) Most airplanes in the First World War (1914-18) were made of metal.
  - b) The biggest passenger aircraft in the world holds almost 250 people.
  - c) There were no human passengers on the first flight by a hot-air balloon, but there was a sheep.
  
4. Which of these statements is false?
  - a) In the fifteenth century, Leonardo da Vinci drew a picture of a machine that looked a bit like a modern helicopter.
  - b) The first flight by a balloon, with human passengers, was in France in 1783.
  - c) The first flight by a 'heavier-than-air' aircraft (not a balloon) took place in France in 1806.
  
5. Which country developed the first jet aircraft?
  - a) Russia
  - b) United States
  - c) Germany
  
6. The Wright brothers invented an aircraft in the United States in 1903. How far was its longest flight on 17<sup>th</sup> December that year?
  - a) 60 metres
  - b) 600 metres
  - c) 6 kilometres
  
7. Which of these statements is false?
  - a) The Boeing 747 can carry more than 400 passengers.
  - b) The first flights by jet aircraft took place in the 1950s.
  - c) The inventor of one of the first 'heavier-than-air' aircraft was a Brazilian.
  
8. The Airbus A380, which will start flying before the end of 2007, will be the world's biggest passenger aircraft. How many passengers will it hold?
  - a) At least 250
  - b) At least 550
  - c) At least 850

# Aircraft

## WORKSHEET B

Throughout history man has dreamed of being able to fly through the air like a bird. In Greek mythology, for example, there is the story of Icarus, a man who flew up into the sky with wings made from wax and feathers, but made the mistake of flying too close to the sun – the wax melted, and he fell to his death. In fifteenth-century Italy, Leonardo da Vinci made a drawing of a machine that looked a bit like a modern helicopter, but almost 500 years would go by before man was able to build such an aircraft.

The dream of flight became reality in the late eighteenth century when European inventors began to develop large balloons that were able to rise into the sky because they were full of hot air, making them lighter than the air outside. Ropes connected the balloon to a large basket containing a fire, to create the warm air, and also space for a few passengers. The very first balloon, an invention by the Montgolfier brothers in France, took off for a two-mile flight near Paris in 1783, with a large crowd watching. There were three passengers – a sheep, a duck and a chicken. Although on that day nobody was confident enough to join the animals in the basket, by the end of 1783 the first human flight by hot-air balloon had taken place.

120 years later, at the start of the 20<sup>th</sup> century, inventors in different countries were trying to build the first 'heavier-than-air' flying machine. The Wright brothers in the United States built a machine that carried its pilot through the air for about 60 metres on 17<sup>th</sup> December 1903, after taking off with the help of a large catapult. However, some people say the first 'real' flight by a heavier-than-air machine took place in Paris in 1906. The inventor and pilot was a Brazilian, Albert Santos-Dumont, and unlike the Wright brothers' machine his aircraft didn't need a catapult to take off. Partly because of two world wars, aircraft technology in the first half of the 20<sup>th</sup> century developed extremely quickly. Airplanes made mostly of wood and canvas took part in the First World War (1914-18), but by the start of the Second World War (1939-45) most aircraft were made from aluminium.

Almost all the planes in the Second World War used propellers to push them through the air, but before the end of the war Germany managed to produce the first jet aircraft. The jet engine was a very important invention as it meant planes could fly much faster, travelling large distances in short periods of time.

In the 1950s and 60s, flying thousands of miles for a holiday or a business meeting became affordable for millions of people around the world, and by the 1970s there were very big jet airliners such as the Boeing 747 or 'jumbo jet', which can carry more than 400 passengers. An even bigger plane, the Airbus A380, with room for at least 550 passengers, will start flying before the end of 2007.