

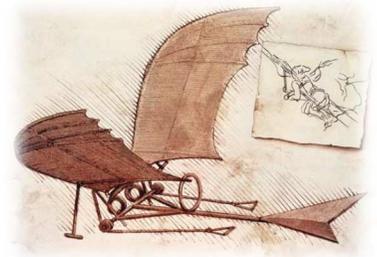
# GREAT INVENTIONS

## THE AIRPLANE



This morning I was at the airport waiting for the arrival of my grandmother's airplane. While I waited for her, I watched the planes take off and land. I wondered how difficult it was for man to learn to fly.

When I got home, I began to investigate the history of airplanes and learned that the famous inventor and artist Leonardo Da Vinci designed a glider in the fifteenth century. It is the one in the photo on the right.

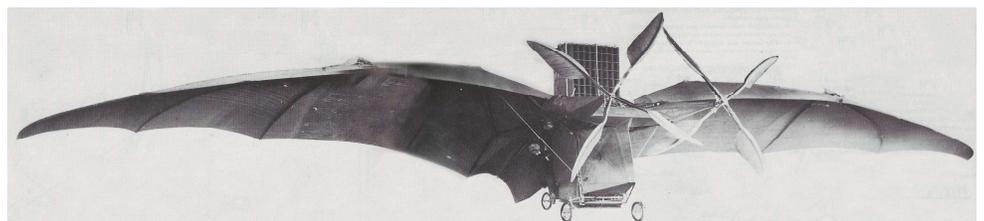


In 1853, the English Sir George Cayley managed to make his glider prototype fly. It could carry a passenger and traveled 122 meters.

Aerodynamics allows airplanes to fly because the difference in air pressure that passes over and under its wings makes it rise and descend by moving its wings.

The difference between a glider and an airplane is the airplane has an engine. So, the next step was to put a motor on the gliders so it could stay up in the air.

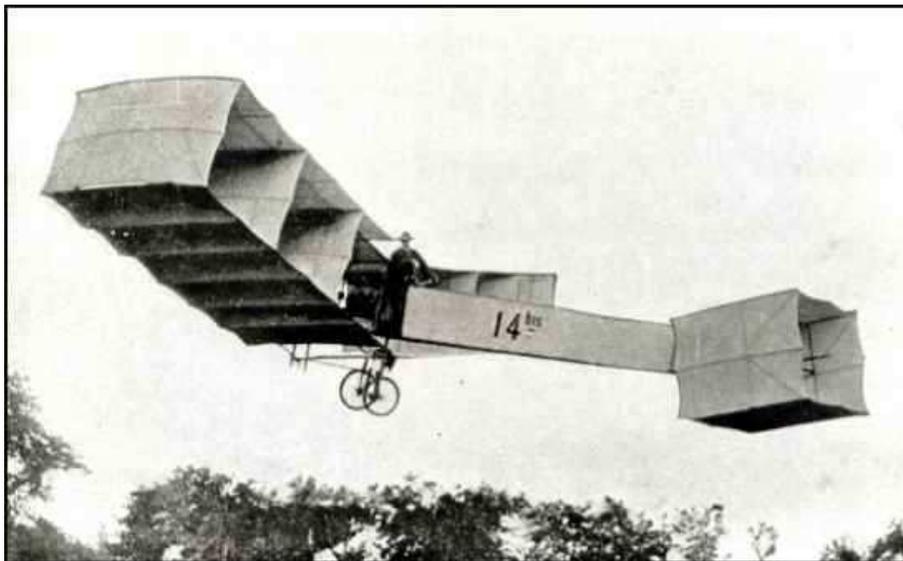
The first plane was built on October 9, 1890, by the Frenchman Clement Ader. He managed to take off with his airplane with a steam engine called the Eole and flew uncontrollably for 50 meters. It is the one seen in this photo that looks like a bat. The Eole flight was the first self-propelled flight in history.





On December 17, 1903, in the United States, the Wright brothers made the first sustained and controlled flight driven by an engine for twelve seconds. They traveled about 36.5 meters. This plane was called the Kitty Hawk, see photo on the left. They used a catapult to take off.

On November 23, 1906, a Brazilian named Santos Dumont was the first man to take off in a plane by itself without a catapult. He flew 220 meters in about 22 seconds, at the height of 2 to 3 meters from the ground. And so, aviation began.



One of the bestselling commercial aircraft in the world is the Boeing 737, with the ability to transport 500 people. Another commercial airplane with an even larger passenger capacity is the Airbus A380, which can transport around 800 people.



Name \_\_\_\_\_

Date \_\_\_\_\_



# THE AIRPLANE



Answer the questions.

1. What did Leonardo Da Vinci design in the fifteenth century?
  - a. a plane
  - b. rigid wings
  - c. a glider
  - d. an airbus
  
2. Sir George Cayley's glider traveled\_.
  - a. 150
  - b. 122
  - c. 1853
  - d. fifty
  
3. How is the pressure of the air passing over the wings of a plane controlled ?
  - a. Slowing down
  - b. Stepping on the brake
  - c. Tilting the plane
  - d. Moving the wings
  
4. Clement Ader's plane was the\_\_\_\_\_.
  - a. Aderplane
  - b. Kitty Hawk
  - c. Eole
  - d. The bat
  
5. How long did the Wright brothers' plane fly in 1903?
  - a. 12 seconds
  - b. 36.5 seconds
  - c. 22 seconds
  - d. 220 seconds
  
6. What did Kitty Hawk use to be able to take off in 1903?
  - a. an engine
  - b. a crane
  - c. a car
  - d. a catapult
  
7. How many meters did Santos Dumont's plane travel in 1906?
  - a. 220 meters
  - b. 2 to 3 meters
  - c. 36.5 meters
  - d. 22 meters
  
8. Which is one of the bestselling commercial planes?
  - a. the Kitty Hawk
  - b. the A380 Airbus
  - c. the Boeing 737
  - d. the Eole
  
9. How many people can the Airbus A380 transport?
  - a. 500 people
  - b. 300 people
  - c. 800 people
  - d. 600 people
  
10. What is the difference between a glider and an airplane?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_