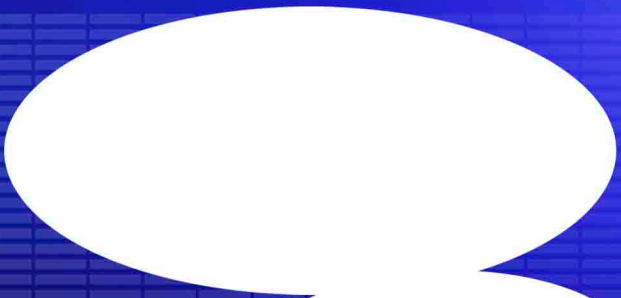




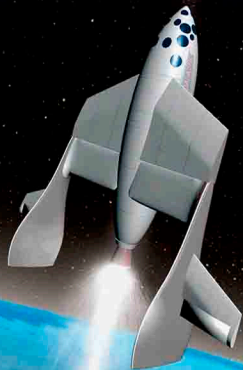
FLIGHT EXPERIENCE

the eXhibition the eXperience

# science & technology challenge



Name:



Science is all about exploring and making your own discoveries. Technology is often about using your imagination to solve real problems.

To complete this challenge you have to find the exhibit mentioned in each question, and then circle the letter beside the answer you think is right.

1 What makes the balloon rise?

- O. Blown by the air below.
- P. The hot air inside it makes it rise.
- Q. Helium is being pushed inside the balloon.

2 Play the first round of the balloon computer game. What force makes the sandbags fall?

- W. Lift.
- X. Gravity.
- Y. Drag.

3 Find the computer exhibit beside the Ferguson monoplane. Compare the length of the first powered flight to the length of the Titanic. Was it.

- E. Shorter?
- F. Longer?
- G. The same length?

4 Have a good look around the silver SC1 aircraft. As well as having an engine at the back of the aircraft to push it forward, it also has four other engines. Can you find where these engines are?

- N. On the wings.
- O. Underneath the fuselage (or body).
- P. On the sides of the fuselage.

5 Find the 'Top Gear' video beside the suitcase. What blows the car off the runway?

- K. Air moved by propellers.
- L. Air moved by jet engines.
- M. It was a very windy day.

6 Find the square of willow at the wall of materials and gently twist it. Why do you think it was important that the willow used to make balloon baskets is springy?

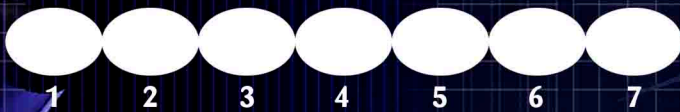
- E. It helped to cushion the fall on a heavy landing.
- F. It was more comfortable for the passengers to lean against.
- G. It allowed the passengers to jump up and down to get a better view.

7 Can you find the famous box that all passenger aircraft have to carry? It allows investigators to work out what happened after an aircraft crashed. What colour is it?

- R. Orange.
- S. Black.
- T. White.

Turn over to find out how well you did in the challenge

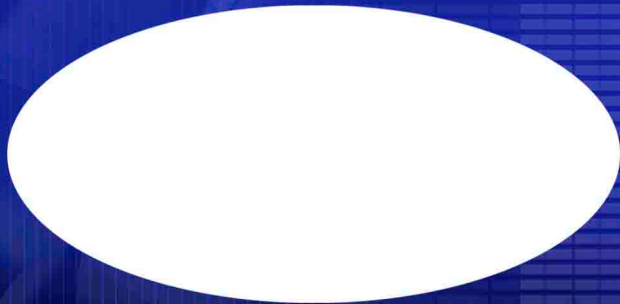
*Write in the 7 letters you circled for the right answers in the boxes below.*



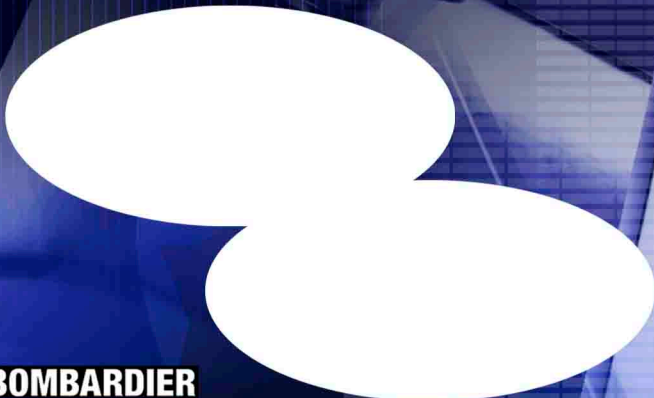
*Now can you use these letters to spell a word that describes what scientists do?*



*What one thing did you learn today about aircraft that most surprised you?*



*Write down 2 questions that you have about any of the exhibits in the gallery*



## *Did you know?...*

The enormous g forces on pilots using the ejection seat compress their spine so much that they are slightly shorter for a while after ejecting.

The total weight of paint on a 747 jumbo jet is the same as the weight of 3 adult passengers.

Some supersonic aircraft can overtake the bullets that they fire.

Most airlines do not allow their male pilots to have beards. The beard would stop an oxygen mask fitting properly if the cabin lost pressure suddenly.

Don't try to flush an aircraft vacuum toilet whilst sitting on it. Some passengers who made this mistake actually became vacuum-sealed to the toilet during the flight.