

A Million Whys Book 23: Science Quiz

The Flight Expedition, by Crafty Clover.

Name: _____ Date: _____ Score: _____ / 12

Fill in the missing number. Use the number bank.

Number bank: 2 11 60 100 200 226 230 385 500 787 1783 1937

1. A big jet may use nearly _____ miles of runway on a hot, heavy day.
From: Why Do Planes Need to Go Fast Before They Can Take Off?
2. The largest flying bird alive by wingspan is the wandering albatross, with wings up to _____ feet across.
From: Why Do Big, Heavy Flyers Need Big Wings?
3. Outside a jet at cruising height, the air temperature is around minus _____ degrees Fahrenheit.
From: Why Do Jets Cruise So High Up Where the Air Is Thin?
4. A honeybee beats its wings about _____ times a second, and a mosquito even more.
From: How Can an Insect Beat Its Wings Hundreds of Times Each Second?
5. A bumblebee flaps its wings about _____ times a second.
From: How Do Bumblebees Fly When People Once Said They Could Not?
6. Leonardo da Vinci sketched flapping machines called ornithopters more than _____ years ago.
From: Why Can't People Fly by Flapping Wings Tied to Their Arms?
7. Almost half of a Boeing _____ is made of composite materials.
From: What Is an Airplane Made Of?
8. In _____, two French brothers, Joseph and Étienne Montgolfier, built a big paper-and-cloth hot air balloon.
From: When Did People First Fly in a Balloon?
9. After a famous airship fire in _____, builders switched to helium.
From: Why Do Airships Use Helium Instead of Hydrogen?
10. A flight from Toronto to London gets a tailwind that can add over _____ miles per hour to its speed, so it takes less time.
From: Why Does a Flight From Toronto to London Take Less Time than the Trip Back?
11. A giant plane called Roc, built to launch rockets, has the longest wingspan ever, about _____ feet, longer than a football field with its end zones.
From: What Are Some of the Biggest Airplanes Ever Built?
12. The world record for the farthest paper plane flight is over _____ feet, which shows how much design matters.
From: Which Paper Plane Designs Fly the Farthest, and Why?

Watch a short video answer for every question at xdme.com

Answer key

1. **2** (A big jet may use nearly 2 miles of runway on a hot, heavy day. Book 23, Question 9)
2. **11** (The largest flying bird alive by wingspan is the wandering albatross, with wings up to 11 feet across. Book 23, Question 19)
3. **60** (Outside a jet at cruising height, the air temperature is around minus 60 degrees Fahrenheit. Book 23, Question 21)
4. **230** (A honeybee beats its wings about 230 times a second, and a mosquito even more. Book 23, Question 35)
5. **200** (A bumblebee flaps its wings about 200 times a second. Book 23, Question 37)
6. **500** (Leonardo da Vinci sketched flapping machines called ornithopters more than 500 years ago. Book 23, Question 49)
7. **787** (Almost half of a Boeing 787 is made of composite materials. Book 23, Question 68)
8. **1783** (In 1783, two French brothers, Joseph and Étienne Montgolfier, built a big paper-and-cloth hot air balloon. Book 23, Question 80)
9. **1937** (After a famous airship fire in 1937, builders switched to helium. Book 23, Question 82)
10. **100** (A flight from Toronto to London gets a tailwind that can add over 100 miles per hour to its speed, so it takes less time. Book 23, Question 117)
11. **385** (A giant plane called Roc, built to launch rockets, has the longest wingspan ever, about 385 feet, longer than a football field with its end zones. Book 23, Question 123)
12. **226** (The world record for the farthest paper plane flight is over 226 feet, which shows how much design matters. Book 23, Question 126)