



What is Aviation and Why Does It Matter?



5 Things Every Kid Should Know About Aviation

Lesson Introduction

ASK STUDENTS: Have you ever looked up at an airplane flying high in the sky and wondered how it got there?

TELL STUDENTS:

- Aviation is all about the science, technology, and people that make flight possible. From the first airplanes to today's spacecraft, aviation has helped humans explore the skies, travel across the world, and discover new possibilities.
- Today, we're going to explore why aviation matters and how it connects to science, innovation, and everyday life.
- Almost everything that flies—airplanes, helicopters, birds, and even rockets—relies on science, engineering, and creative problem-solving.
- Aviation has helped people travel faster, deliver supplies around the world, respond to emergencies, and explore beyond Earth.



What is Aviation and Why Does It Matter?

5 Things Every Student Should Know About Aviation

TELL STUDENTS: Today we are going to learn five important things about aviation that help us understand why flight is such an amazing achievement.

Understanding aviation helps us see how science, creativity, and determination can turn big ideas into reality—and maybe even inspire the next generation of aviators and innovators.

- **Aviation means the science and practice of flying.**

It includes airplanes, helicopters, drones, and the people who design, build, and fly them.

- **Flight is possible because of science.**

Airplanes rely on important principles like the Four Forces of Flight—lift, thrust, drag, and gravity—to get into the air and stay there.

- **Aviation changed the way the world connects.**

Airplanes allow people, goods, and ideas to travel across the globe quickly.

- **Aviation began with pioneers and innovators.**

Early aviation leaders like Wilbur Wright and Orville Wright helped prove that powered flight was possible.

- **Aviation helps shape the future.**

Pilots, engineers, scientists, and astronauts continue to push the boundaries of flight and exploration.



Student Worksheet

Aviation means the science and practice of flying!

Name: _____



1. **What Does Aviation Mean?** Aviation means the science and practice of flying. It includes airplanes, helicopters, drones, and the people who design, build, and fly them.

Write the definition of aviation in your own words:

2. **Aviation or Not?** Circle the things that are part of aviation.

Butterfly	Airplane
Hot Air Balloon	Bird
Jet Fighter	Helicopter
Airline Pilot	Drone
Bumblebee	Clouds

3. **Who Works in Aviation?** Can you match the aviation job with what they do by drawing a line from the worker to the job?

Pilot	▪ Fixes and maintains the aircraft
Engineer	▪ Designs airplanes and aircraft technology
Mechanic	▪ Flies the airplane

4. **Imagine your own Flying Machine!** Draw your own flying machine below.
Think about:

- What does it look like?
- What is it used for?
- Who would fly it?

5. **Challenge Question:** On the back of this sheet, write why you think aviation is important to the world

Student Worksheet

Why Can Airplanes Fly?

Name: _____



Did you know flight is possible because of science?

Airplanes fly because four important forces work together. These are called the Four Forces of Flight.

The Four Forces

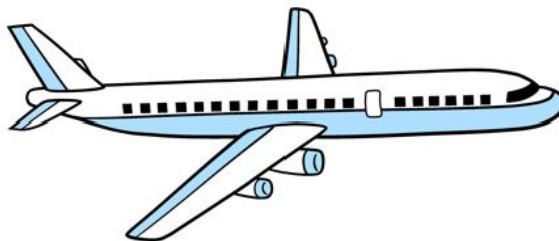
- **Lift** – Helps the airplane go up into the sky.
- **Thrust** – Pushes the airplane forward.
- **Drag** – Air pushing back and slowing the airplane down.
- **Gravity** – Pulls the airplane down toward Earth.

1. **Match the Force:** Draw a line to match the force with what it does.

- | | |
|---------|---------------------------------------|
| Lift | •Pulls things down toward the ground |
| Thrust | •Pushes the airplane forward |
| Drag | •Slows the airplane down |
| Gravity | •Helps the airplane rise into the air |

2. **Imagine an airplane flying:** Draw arrows showing where each force acts.

-  Lift
-  Gravity
-  Thrust
-  Drag



3. **Think like a Scientist:** Circle the answer. If an airplane wants to fly higher, which force must be increased?

Lift

Drag

Thrust

Gravity



Student Worksheet

How Aviation Connects the World!

Name: _____



Did you know Aviation changed the way the world connects? Airplanes allow people, goods, and ideas to travel across the globe quickly. Aviation helps families visit each other, businesses ship products, and emergency teams deliver important supplies.

1. Why Do We Use Airplanes? Circle the reasons airplanes are important.

Visiting family in other countries

Traveling long distances quickly

Delivering food and medicine

Helping during emergencies

Watching television

Sending text messages

2. What Can Airplanes Carry? Airplanes transport many things around the world. Write three things airplanes might carry.

1. _____

2. _____

3. _____

3. Connecting the World. Draw shipping packages to mail flying to the example.

• Flying supplies after a natural disaster

• Shipping packages to another country

• Flying to visit family or go on vacation

Travel

Delivery

Emergency Help

5. Map the Journey: Imagine you are flying from your city to another country. On the back of this page, draw a simple map below showing:

• Where you start

• Where you are going

• The airplane flying between the two places



Student Worksheet Aviation Pioneers Homework Research Activity



Name: _____

Did you know Aviation began with pioneers and innovators? Early aviators experimented, invented, and tested new ideas that helped humans learn how to fly. Many of these innovators are honored by the National Aviation Hall of Fame for their contributions to aviation history.

For this activity, you will be exploring aviation pioneers by visiting:
<https://nationalaviation.org/learning/our-enshrinees>

- 1. Choose an Aviation Pioneer.** Use the website to select one aviation pioneer who is honored in the Hall of Fame.

Name of Aviation Pioneer: _____

- Year they were enshrined: _____
- 2. What Did They Do?** Write three important facts about this aviation pioneer. _____

1. _____

2. _____

3. _____

- 3. Why were they important?** Explain how this person helped aviation grow.

