

Objective

By the end of this lesson, you will understand the basic principles of flight and how aircraft are able to fly.

Materials and Prep

- Paper airplanes
- Internet access for research
- Pen and paper for notes
- No prior knowledge needed, just bring your curiosity!

Activities

- **Paper Airplane Design Challenge:** Research different types of paper airplane designs and create your own unique design. Test and compare how well they fly.
- **Flight Simulation Game:** Play an online flight simulator game to experience flying an aircraft virtually. Note down the similarities and differences between virtual and real flight.
- **Aircraft Anatomy Study:** Look up the different parts of an aircraft (like wings, fuselage, engines) and draw a labeled diagram of an airplane.

Talking Points

- **What Makes Flight Possible:** "Planes fly because of the way their wings are shaped. The shape creates lift, which helps the plane stay in the air."
- **Forces of Flight:** "There are four main forces acting on an aircraft during flight: lift, weight, thrust, and drag. These forces work together to keep the plane flying smoothly."
- **Types of Aircraft:** "There are many different types of aircraft, from airplanes to helicopters to drones. Each type has its own unique way of flying."
- **The Wright Brothers:** "Did you know that the Wright brothers were the first to achieve powered flight in 1903? Their invention paved the way for modern aviation!"
- **Future of Aviation:** "Aviation technology is always evolving. Who knows what amazing aircraft we'll see in the future!"