

Aviation Mentorship Program

Target Group: Primary & Secondary School Aviation Class 2026

- Objective:**
1. Provide foundational aircraft knowledge,
 2. Inspire interest in aviation careers
 3. Give hands-on exposure to aircraft systems.

No.	Subject Key Topics	Activities / Practical Work
	Foundations & Core Aircraft Systems	
1	Introduction to Aviation & Aircraft Types	History of aviation, Classification (GA, commercial, military), Fixed vs rotary wing Aircraft identification game, Walk-around of training aircraft or model
2	Aircraft Structures (Airframe)	Fuselage, wings, empennage, undercarriage; Materials used Hands-on: label aircraft parts, explore a dismantled airframe if available
3	Aerodynamics	Four forces of flight, Bernoulli's principle, lift generation Paper airplane experiments, wind tunnel demo (if available)
4	Flight Controls	Primary (ailerons, elevator, rudder), secondary (flaps, slats, spoilers) Cockpit control demo, connect control movement to surface movement
5	Aircraft Power plants	Piston vs jet engines, turbofan/turboprop basics, propeller function View cut-away engine or model, engine sound ID game
	Systems, Safety & Operations	
6	Aircraft Electrical & Avionics	Basic electrical circuits, instruments (altimeter, airspeed, attitude indicator), radios Simulator session reading basic instruments
7	Aircraft Fuel & Hydraulic Systems	Fuel types, delivery systems, hydraulics for landing gear & brakes Hydraulic pressure demo with small model pump
8	Aircraft Safety Systems	Fire suppression, oxygen systems, evacuation slides, seatbelt design Safety equipment demo, mock pre-flight safety check
9	Aircraft Maintenance & Inspections	Line vs base maintenance, daily checks, defect reporting Perform a mock "transit check" on a static aircraft
10	Human Factors & Careers in Aviation	Pilot & engineer roles, teamwork, communication, safety culture Guest talk from pilot/engineer, Q&A session

Program Outcomes

By the end, students will:

1. Identify main aircraft components & functions.
2. Explain basic aerodynamic principles.
3. Recognize key aircraft systems and their role in safe operation.
4. Perform a basic mock inspection/checklist.
5. Understand possible aviation career paths.

Payment to: MPesa Till No. 9366385

Contacts: Tel & What'sApp +254 720743674 Website: <https://akadeducationafrica.com/aviation-piloting.php>