



Selected Aerospace Topics in Curriculum Context:

Educators who teach about aviation and space education are often challenged by administrators, parents and other teachers who question the validity of such study. The following (by no means comprehensive) list should serve as reminder of how these topics interrelate with traditional studies.

Example: An Aviator. . .

- Where they fly is GEOGRAPHY
- Who made them fly is HISTORY
- How they fly is SCIENCE
- Where they land is SOCIAL STUDIES

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LIBERAL ARTS

**Art/Literature**

- Aircraft Design
- Balloons
- Biographies
- Commemorative stamps and medals
- Da Vinci's History of Flight
- Insignia
- Interiors of aircraft
- Kites
- Medals and decorations
- Mythology
- Objects of Art
- Photography
- Pilot and crew wings
- Science fiction
- Spacecraft Design
- Trophies and awards

**Government**

- The Aerospace Industry
- Air Traffic Control (ATF)
- The Apollo Program
- The Federal Aviation Administration (FAA)
- The Mercury Program
- NASA
- Pilots and pilot certification

**History**

- Ace
- Air Balloons
- Autogiros
- Biographies
- Bomber Aircraft
- Commemorative stamps and medals
- Dirigibles (Blimps)
- Flying Circus
- Gliders
- History of Aviation
- Man-powered Flight
- The Tuskegee Airmen
- Women in Aerospace
- WWI Aircraft
- WWII Aircraft
- Zeppelins

**Social Studies**

- Air Forces of the world
- Airmail
- Air Taxis
- The Apollo Program
- The Atlas Missile
- Bombs
- Career Opportunities
- Cargo Airlift
- Commercial airlines
- Communications satellites
- Crop Dusting

- Flight Test programs
- Forest Fire control
- The Gemini Project
- Gliders
- Hangers
- Helicopters
- History of Aviation
- Jet Aircraft
- Jumbo Jets
- The Kennedy Space Center
- Launch facilities
- Launch vehicles
- Lunar exploration
- Manned spaceflight
- Manufacturing
- Military and Military Aircraft
- NASA
- NORAD
- Passenger flight
- Police and fire services
- Preflight training
- Radio communications
- Runways
- Sailplanes
- Satellites
- Search and Rescue
- Space stations
- STEM Education
- Unidentified Flying Objects (UFOs)
- Wind Tunnels



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## SCIENCES

### **Astronomy**

Comets  
Constellations  
Eclipses  
Galaxies  
Interplanetary travel  
Light Meteors  
Moon  
Observatories  
Orbiting observations  
Orbits and trajectories  
Planetariums  
Planets  
Solar System  
Stars  
The Sun  
Telescopes  
The Universe

### **Biology**

Animals in space  
Bird flight  
Closed ecological system  
Extraterrestrial life  
Photosynthesis

### **Chemistry**

Air  
Atoms  
Atmosphere  
Closed Ecological Systems  
Elements  
Forces  
Fuels  
Gases  
Propellants  
Specific gravity

### **Earth Science/Geography**

Air masses  
Charts  
Compasses  
Course plotting  
Environmental Research  
Satellites  
Explorer Satellites  
Geodetic Satellites  
Gravity  
The Greenhouse Effect  
Kosmos Satellites

Latitude and Longitude  
The Magnetic Field  
Navigation Systems  
Navigation Techniques  
Orbiting Observations  
Precipitation  
Rangers  
Surveyors  
Topography

### **Health/Physiology**

Aerospace Medicine  
Astronauts  
Flight physicals  
Food and nutrition  
Life-support Systems  
Man in flight  
Man-powered flight  
Manned spaceflight  
Pressurization  
Spacesuits  
Temperature control  
Weightlessness

### **Mathematics**

Binary Numbers  
Celestial navigation  
Course plotting  
Dead reckoning  
Information Systems  
Navigation Techniques  
Orbits and Trajectories  
Weight and Balance

### **Meteorology**

Air  
Air Masses  
Atmosphere  
Aurora  
Aviation weather  
Barometric Pressure  
Clouds  
Condensation  
Convection currents  
Evaporation  
Fog  
Humidity  
Lightening  
Precipitation  
Turbulence

Weather  
Weather maps and charts  
Weather satellites  
Wind

### **Outer Space/The Solar System**

Astronomy  
Galaxies  
The Mercury Program  
Planets  
Satellites  
Saturn Rockets  
Space Stations  
Space Walks  
Stars  
The Sun

### **Physics**

Airplanes  
Airspeed Indicator  
Altitude Control  
Automatic landing  
Bank  
Bernoulli's Principle  
Boyle's Law  
Carburetion  
Center of Gravity  
Computers  
Electricity  
Electronics  
Energy  
Engines  
Gyroscope  
Heat Energy  
Launching  
Measurements of Power  
Newton's Law  
Noise  
Nuclear Energy  
Nuclear Propulsion  
Radar  
Radio  
Robots  
Sailplanes  
Solar Cells  
Supersonic Flight  
Temperature Scale  
Wind Tunnels  
Wings