









Multiple Category Scope and Sequence: Scope and Sequence Report For Course Standards and Objectives, Content, Skills, Vocabulary

Wednesday, August 20, 2014, 1:18PM



| Unit | Course Standards and Objectives | Content | Skills | Vocabulary |
|---|--|--|---|---|
| District Intermediate Air Transportation 2014-2015 Readicker, Carl | Importance of Air Transportation  (Week 1, 2 Weeks)  | <p><u>Students will realize the importance of the rapid progression of flight since the historic 1903 accomplishment of the Wright Brothers.</u></p> <ul style="list-style-type: none"> The importance of air transportation Economic forecast Political and social aspect | <ul style="list-style-type: none"> Recall the early progression of mans efforts to fly. Recite the progression of aircraft from 1903 to the birth of the modern airliner. | <ul style="list-style-type: none"> Dirigibles Economic National Defense Manufacturing General Aviation Airlines Transportation |
| | Mans Efforts to Fly  (Week 2, 2 Weeks)  | <p><u>The Dreamers of the World</u></p> <ul style="list-style-type: none"> Francesco de Lana <p><u>Lighter Than Air</u></p> <ul style="list-style-type: none"> Joseph and Etienne Montgolfier <p><u>Gliders</u></p> <ul style="list-style-type: none"> Sir George Cayley William Henson and John Stringfellow Alphonse Penaud Otto Lilienthal | <ul style="list-style-type: none"> Research early efforts to understand flight through mythology Study the works of Leonardo da Vinci | <ul style="list-style-type: none"> Aviation Cambered Wing Structure Horsepower Glider Wind Tunnel Transcontinental |
| | Development of the Airplane  (Week 4, 2 Weeks)  | <p><u>The progression of the airplane from a dream to reality</u></p> <ul style="list-style-type: none"> Dreamers such as da Vinci | <ul style="list-style-type: none"> Study the efforts of the Montgolfier brothers Understand the accomplishments of | <ul style="list-style-type: none"> Aviation Cambered Wing Triplane Ornithropter |

- Francesco de Lana
- Sir George Cayley Books, Carriages and Engines
- William Henson and John Stringfellow Aerial Steam Carriage Co.
- Alphonse Penaud
- Otto Lilienthal
- Octave Chanute
- Orville and Wilbur Wright

- Alberto Santos-Dumont
- Describe the Wright brothers contributions

- Propellers
- Glider
- Wind Tunnel

The Beginning of Commercial Air

Transportation  (Week 4, 2 Weeks) 

Commercial Air Transportation

- Airplane as a utility commercial vehicle
- Airmail service beginning
- Commercial passengers

- Recognize the sacrifices of early air mail pilots
- Describe the contributions of the early pilots

- Airmail
- Postage
- Navigational aids
- Airways

Air Carrier Industry and Federal Legislation

(Week 6, 1 Week) 

Federal Legislation and Airmail Acts

- Airmail act of 1925 (The Kelly Act)
- Air Commerce Act of 1926
- Airmail Act of 1930
- Airmail Act of 1934
- Civil Aeronautics Act of 1938
- Federal Aviation Act of 1958
- Airline Deregulation Act of 1978

- View the progress of our nation in federal legislation
- Get to know the players who brought about new rules
- Understand the complexity of earning money in the aviation business

- Civil air transportation
- Cam Routes
- Airline Deregulation
- Stewardess
- Aeronautics
- Airman
- Civil aircraft of the United States

Department of Transportation

(Week 8, 1 Week) 

History

- 10 different offices contained within the branch

- Evaluate safety procedures
- Investigate the history of the FAA
- Learn the role of the Department of Transportation

- National Transportation Policy
- Navigation
- Certification

Federal Aviation Administration

- Safety regulations
- Airspace and air traffic management
- Air navigation facilities
- Certification of Airmen
- Certification of Aircraft

Federal Aviation Administration

(Week 9, 1 Week) 

Overview of the Federal Aviation Administration

- Predecessor Agencies
- Breakout of duties

- Investigate the predecessor agencies of the FAA
- Know the flight crew roll in safety
- Understand FAA rule making and parts for

- FAA
- CAA
- CAB
- Promulgated

- Breakout of houses within the agency

example 91 61

Regional Boundaries

- Northwest Mountain
- Western Pacific

Who is responsible for aviation safety

- Faa
- Aircraft registration
- Safety regulations
- Safety certificates
- Air traffic control
- Flight Crew

- Research accident data and understand how to avoid problems
- Present alternate options to make a successful outcome from accident data

- NTSB
- Registration
- Air Carrier
- FAR
- Pre-flight
- De-icing
- Responsibility
- Reinspection
- ATC
- ARTCC
- TRACON
- Investigation

What is the charge of the National Transportation and Safety Board

- Investigation of accidents
- Aircraft
- Railroad
- Certain Highway
- Marine accidents
- Release of hazardous materials

Aircraft Accident Investigation Process

- Air carrier and large aircraft accidents
- Midair collisions
- In-flight breakup
- In-flight fire accidents
- Accidents involving newly certificated aircraft
- High performance aircraft


- Analyze accident data
- Explain causes of accidents
- Collect data and understand how we can change accident rates

- Go-Team
- Midair
- Black-Box
- (CVR) Cockpit voice Redcorder
- (FDR) Flight Data Recorder
-

Safety and Aircraft Performance Procedures

- Density altitude
- Landing distance charts
- Take-off distance charts
- Runway incursion
- Pilot Error
- System or mechanical failure
- Controlled flight into terrain

Aviation Safety and the

NTSB  (Week 10, 1 Week)



Aviation Accident Investigation Safety

Performance  (Week 11, 1

Week) 

Air Carriers  (Week 13, 1 Week) 

Brief History of Air Carrier History

Modern Air Carriers and Terminology

- Helicopter Air carriers
- Commuter Carriers
- Regional Carriers
- Major Carriers

Employment opportunities within the Industry

- Pilot
- Airframe Powerplant Technician
- Air Traffic control

History of William Boeing and his Company

- When was Boeing founded
- Introduction to Bill Boeing
- Time line of production

Noted Boeing Aircraft

- Boeing Model 40-A
- Boeing Model 247
- Boeing B-17
- Boeing 314 Clipper
- Boeing 707
- Boeing 747
- Boeing 787 Dreamliner

The purpose of General Aviation

- Business
- Personal Transportation
- Sport
- Air Taxi and Rental
- Instructional

The value of General Aviation in or community

- Goods and services that are produced for GA

- State the important names in aviation history
- Explain the difference between regional and major carriers
- Consider career opportunities
- Air Carrier
- Airline Revenue
- Overbooking
- Subcontractors

Aircraft The Boeing Company  (Week 14, 2 Weeks) 

History of William Boeing and his Company

- When was Boeing founded
- Introduction to Bill Boeing
- Time line of production

Noted Boeing Aircraft

- Boeing Model 40-A
- Boeing Model 247
- Boeing B-17
- Boeing 314 Clipper
- Boeing 707
- Boeing 747
- Boeing 787 Dreamliner

The purpose of General Aviation

- Business
- Personal Transportation
- Sport
- Air Taxi and Rental
- Instructional

The value of General Aviation in or community

- Goods and services that are produced for GA

- Research the history of all major airlines
- Name some of the most famous aircraft produced
- Aircraft Performance
- Aircraft Fleets
- William Boeing
- Short-Range
- Medium-Range
- Flight Deck
- Freighter

General Aviation  (Week 16, 3 Weeks) 

The purpose of General Aviation

- Business
- Personal Transportation
- Sport
- Air Taxi and Rental
- Instructional

The value of General Aviation in or community

- Goods and services that are produced for GA

- Consider the Business of Aviation
- Research the personal transportation aspect
- Recognize opportunities in sport aviation
- Analyze the advantages of General Aviation
- General Aviation
- Air Taxi
- Rental
- Instructional
- Personal Transportation
- Sport
- Cessna
- Piper

- Industry that is spawned by GA activity

The amount of money Generated by General Aviation

- How much money is generated today
- What is the future of general aviation
- Numbers of aircraft built and sold world wide

