

Unit	Unit Title	Concepts	Objectives
Unit 1	Aerospace Technologies	Technology Overview Engineering Design Process	Know and understand the core concepts of technology.
			Apply the core concepts of technology using the engineering design process.
Unit 2	ABC's of Aerospace	General Aviation Commercial Aviation Military Aviation	Describe and define different categories of aviation.
Unit 3	Science of Aerospace	Physics: Aerostatics & Aerodynamics  Chemistry: Aviation Gas vs. Rocket Fuel  Biology: Effects of Flight on the Body Living in Space	Define terminology associated with aerostatics and aerodynamics.
			Explain how buoyancy principles affect an object in a fluid.
			Explain how Bernoulli's Principle, Newton's Third Law of Motion and the Magnus Effect apply to an object in flight.
			Build an aerostatic vehicle.
			Build an aerodynamic vehicle
			Explain impacts of flight on the human body.
Unit 4	Aerospace: Flight in the Atmosphere	Preflight Introduction to the Airplane Weight and Balance Performance Weather Navigation Safety of Flight	Identify and explain the function of the parts of an airplane.
			Understand center of gravity, airplane weight and balance, and their importance to flight.
			Understand how weather theory contributes to a pilot's ability to make sound decisions regarding safety of flight.
			Identify methods pilots use to navigate and plot courses to fly.
			Identify common errors and issues that negatively impact flight safety.
			Understand methods pilots use to analyze factors associated with flight safety.
			Unit 5
Describe the basic functions and advantages of communications, weather, and navigation satellites.			
Capstone	Aerospace Problems and Solutions		Given an aerospace problem, research and present potential solutions.