

Exploring Aeronautics			
2008 Science			
Curriculum Standards			
Tennessee Science			
Grade 5			
Activity/Lesson	State	Standards	
Fundamentals of Aeronautics (145-176)	TN	SCI.5.GLE 0507.Inq.3	Organize data into appropriate tables, graphs, drawings, or diagrams.
Fundamentals of Aeronautics (145-176)	TN	SCI.5.GLE 0507.Inq.6	Compare the results of an investigation with what scientists already accept about this question.
Fundamentals of Aeronautics (145-176)	TN	SCI.5.GLE 0507.11.1	Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.
Wings(177-208)	TN	SCI.5.GLE 0507.T/E.5	Apply a creative design strategy to solve a particular problem generated by societal needs and wants.
Airplane Control(209-256)	TN	SCI.5.GLE 0507.T/E.5	Apply a creative design strategy to solve a particular problem generated by societal needs and wants.
How an Airplane Flies	TN	SCI.5.GLE 0507.11.1	Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.
The Tools of Aeronautics	TN	SCI.5.GLE 0507.T/E.5	Apply a creative design strategy to solve a particular problem generated by societal needs and wants.
The Activity Center	TN	SCI.5.GLE 0507.11.1	Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.
Science of Flight	TN	SCI.5.GLE 0507.Inq.1	Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.
Science of Flight	TN	SCI.5.GLE 0507.Inq.6	Compare the results of an investigation with what scientists already accept about this question.
Science of Flight	TN	SCI.5.GLE 0507.T/E.5	Apply a creative design strategy to solve a particular problem generated by societal needs and wants.
Science of Flight	TN	SCI.5.GLE 0507.10.2	Conduct experiments on the transfer of heat energy through conduction, convection, and radiation.
Integrating with Aeronautics	TN	SCI.5.GLE 0507.Inq.3	Organize data into appropriate tables, graphs, drawings, or diagrams.
Integrating with Aeronautics	TN	SCI.5.GLE 0507.Inq.5	Recognize that people may interpret the same results in different ways.
Integrating with Aeronautics	TN	SCI.5.GLE 0507.9.1	Observe and measure the simple chemical properties of common substances.
Integrating with Aeronautics	TN	SCI.5.GLE 0507.11.1	Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.

Intro to Aeronautics (109-123)	TN	SCI.5.GLE 0507.11.1	Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.
Scientific Method(124-144)	TN	SCI.5.GLE 0507.Inq.1	Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.
Scientific Method(124-144)	TN	SCI.5.GLE 0507.T/E.5	Apply a creative design strategy to solve a particular problem generated by societal needs and wants.
Scientific Method(124-144)	TN	SCI.5.GLE 0507.10.1	Design an experiment to illustrate the difference between potential and kinetic energy.
Scientific Method(124-144)	TN	SCI.5.GLE 0507.11.1	Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.
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Grade 6			
Activity/Lesson	State	Standards	
Wings(177-208)	TN	SCI.6.GLE 0607.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Airplane Control(209-256)	TN	SCI.6.GLE 0607.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Tools of Aeronautics(257-326)	TN	SCI.6.GLE 0607.Inq.5	Communicate scientific understanding using descriptions, explanations, and models.
Tools of Aeronautics(257-326)	TN	SCI.6.GLE 0607.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
The Tools of Aeronautics	TN	SCI.6.GLE 0607.Inq.5	Communicate scientific understanding using descriptions, explanations, and models.
The Activity Center	TN	SCI.6.GLE 0607.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Science of Flight	TN	SCI.6.GLE 0607.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Science of Flight	TN	SCI.6.GLE 0607.Inq.4	Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.
Science of Flight	TN	SCI.6.GLE 0607.Inq.5	Communicate scientific understanding using descriptions, explanations, and models.
Science of Flight	TN	SCI.6.GLE 0607.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.

Intro to Aeronautics (109-123)	TN	SCI.6.GLE 0607.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Intro to Aeronautics (109-123)	TN	SCI.6.GLE 0607.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Scientific Method(124-144)	TN	SCI.6.GLE 0607.Inq.1	Design and conduct open-ended scientific investigations.
Scientific Method(124-144)	TN	SCI.6.GLE 0607.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Scientific Method(124-144)	TN	SCI.6.GLE 0607.Inq.4	Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.
Scientific Method(124-144)	TN	SCI.6.GLE 0607.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Scientific Method(124-144)	TN	SCI.6.GLE 0607.2.3	Draw conclusions from data about interactions between the biotic and abiotic elements of a particular environment.
Scientific Method(124-144)	TN	SCI.6.GLE 0607.8.1	Design and conduct an investigation to determine how the sun drives atmospheric convection.

Exploring Aeronautics

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Curriculum Standards

Tennessee Science

Grade 7

Activity/Lesson

State

Standards

Fundamentals of Aeronautics (145-176)	TN	SCI.7.GLE 0707.11.2	Apply the equation for work in experiments with simple machines to determine the amount of force needed to do work.
Fundamentals of Aeronautics (145-176)	TN	SCI.7.GLE 0707.11.4	Investigate how Newton's laws of motion explain an object's movement.
Wings(177-208)	TN	SCI.7.GLE 0707.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Wings(177-208)	TN	SCI.7.GLE 0707.11.4	Investigate how Newton's laws of motion explain an object's movement.
Airplane Control(209-256)	TN	SCI.7.GLE 0707.11.4	Investigate how Newton's laws of motion explain an object's movement.
Tools of Aeronautics(257-326)	TN	SCI.7.GLE 0707.Inq.5	Communicate scientific understanding using descriptions, explanations, and models.
Tools of Aeronautics(257-326)	TN	SCI.7.GLE 0707.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.

How an Airplane Flies	TN	SCI.7.GLE 0707.11.2	Apply the equation for work in experiments with simple machines to determine the amount of force needed to do work.
The Tools of Aeronautics	TN	SCI.7.GLE 0707.Inq.5	Communicate scientific understanding using descriptions, explanations, and models.
The Tools of Aeronautics	TN	SCI.7.GLE 0707.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
The Activity Center	TN	SCI.7.GLE 0707.11.2	Apply the equation for work in experiments with simple machines to determine the amount of force needed to do work.
Science of Flight	TN	SCI.7.GLE 0707.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Science of Flight	TN	SCI.7.GLE 0707.Inq.4	Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.
Science of Flight	TN	SCI.7.GLE 0707.Inq.5	Communicate scientific understanding using descriptions, explanations, and models.
Science of Flight	TN	SCI.7.GLE 0707.11.2	Apply the equation for work in experiments with simple machines to determine the amount of force needed to do work.
Science of Flight	TN	SCI.7.GLE 0707.11.4	Investigate how Newton's laws of motion explain an object's movement.
Integrating with Aeronautics	TN	SCI.7.GLE 0707.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Integrating with Aeronautics	TN	SCI.7.GLE 0707.11.2	Apply the equation for work in experiments with simple machines to determine the amount of force needed to do work.
Intro to Aeronautics (109-123)	TN	SCI.7.GLE 0707.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Intro to Aeronautics (109-123)	TN	SCI.7.GLE 0707.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Intro to Aeronautics (109-123)	TN	SCI.7.GLE 0707.11.2	Apply the equation for work in experiments with simple machines to determine the amount of force needed to do work.
Scientific Method(124-144)	TN	SCI.7.GLE 0707.Inq.4	Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.
Scientific Method(124-144)	TN	SCI.7.GLE 0707.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Scientific Method(124-144)	TN	SCI.7.GLE 0707.11.4	Investigate how Newton's laws of motion explain an object's movement.
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Activity/Lesson	State	Standards	
Wings(177-208)	TN	SCI.8.GLE 0807.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Airplane Control(209-256)	TN	SCI.8.GLE 0807.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
The Tools of Aeronautics	TN	SCI.8.GLE 0807.Inq.5	Communicate scientific understanding using descriptions, explanations, and models.
The Tools of Aeronautics	TN	SCI.8.GLE 0807.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
The Tools of Aeronautics	TN	SCI.8.GLE 0807.12.2	Design an investigation to change the strength of an electromagnet.
The Activity Center	TN	SCI.8.GLE 0807.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Science of Flight	TN	SCI.8.GLE 0807.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Intro to Aeronautics (109-123)	TN	SCI.8.GLE 0807.Inq.2	Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
Intro to Aeronautics (109-123)	TN	SCI.8.GLE 0807.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
Scientific Method(124-144)	TN	SCI.8.GLE 0807.T/E.2	Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.