

<b>Exploring Aeronautics</b>			
<b>2004 Science</b>			
<b>Grade Level Expectations</b>			
<b>Louisiana Science</b>			
<b>Grade 5</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Tools of Aeronautics(257-326)	LA	SCI.5.SI.14	Develop models to illustrate or explain conclusions reached through investigation
Tools of Aeronautics(257-326)	LA	SCI.5.SI.15	Identify and explain the limitations of models used to represent the natural world
Tools of Aeronautics(257-326)	LA	SCI.5.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
Tools of Aeronautics(257-326)	LA	SCI.5.ESS.32	Demonstrate the results of constructive and destructive forces using models or illustrations
Tools of Aeronautics(257-326)	LA	SCI.5.ESS.44	Explain rotation and revolution by using models or illustrations
How an Airplane Flies	LA	SCI.5.PS.8	Explain that gravity accelerates all falling objects at the same rate in the absence of air resistance
How an Airplane Flies	LA	SCI.5.PS.9	Demonstrate a change in speed or direction of an object's motion with the use of unbalanced forces
The Tools of Aeronautics	LA	SCI.5.SI.14	Develop models to illustrate or explain conclusions reached through investigation
The Tools of Aeronautics	LA	SCI.5.SI.15	Identify and explain the limitations of models used to represent the natural world
The Tools of Aeronautics	LA	SCI.5.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
The Tools of Aeronautics	LA	SCI.5.ESS.32	Demonstrate the results of constructive and destructive forces using models or illustrations
The Tools of Aeronautics	LA	SCI.5.ESS.44	Explain rotation and revolution by using models or illustrations
Science of Flight	LA	SCI.5.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Science of Flight	LA	SCI.5.SI.4	Design, predict outcomes, and conduct experiments to answer guiding questions
Science of Flight	LA	SCI.5.SI.6	Select and use appropriate equipment, technology, tools, and metric system units of measurement to make observations
Science of Flight	LA	SCI.5.SI.7	Record observations using methods that complement investigations (e.g., journals, tables, charts)
Science of Flight	LA	SCI.5.SI.8	Use consistency and precision in data collection, analysis, and reporting
Integrating with Aeronautics	LA	SCI.5.SI.11	Construct, use, and interpret appropriate graphical representations to collect, record, and report data (e.g., tables, charts, circle graphs, bar and line graphs, diagrams, scatter plots, symbols)
Integrating with Aeronautics	LA	SCI.5.SI.19	Communicate ideas in a variety of ways (e.g., symbols, illustrations, graphs, charts, spreadsheets, concept maps, oral and written reports, equations)

Scientific Method(124-144)	LA	SCI.5.SI.1	Generate testable questions about objects, organisms, and events that can be answered through scientific investigation
Scientific Method(124-144)	LA	SCI.5.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Scientific Method(124-144)	LA	SCI.5.SI.4	Design, predict outcomes, and conduct experiments to answer guiding questions
Scientific Method(124-144)	LA	SCI.5.SI.5	Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment
<b>Exploring Aeronautics</b>			
<b>2004 Science</b>			
<b>Grade Level Expectations</b>			
<b>Louisiana Science</b>			
<b>Grade 6</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Fundamentals of Aeronautics (145-176)	LA	SCI.6.PS.19	Identify forces acting on all objects
Fundamentals of Aeronautics (145-176)	LA	SCI.6.PS.20	Draw and label a diagram to represent forces acting on an object
Fundamentals of Aeronautics (145-176)	LA	SCI.6.PS.21	Determine the magnitude and direction of unbalanced (i.e., net) forces acting on an object
Fundamentals of Aeronautics (145-176)	LA	SCI.6.PS.22	Demonstrate that an object will remain at rest or move at a constant speed and in a straight line if it is not subjected to an unbalanced force
Tools of Aeronautics(257-326)	LA	SCI.6.SI.14	Develop models to illustrate or explain conclusions reached through investigation
Tools of Aeronautics(257-326)	LA	SCI.6.SI.15	Identify and explain the limitations of models used to represent the natural world
Tools of Aeronautics(257-326)	LA	SCI.6.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
How an Airplane Flies	LA	SCI.6.PS.21	Determine the magnitude and direction of unbalanced (i.e., net) forces acting on an object
The Tools of Aeronautics	LA	SCI.6.SI.14	Develop models to illustrate or explain conclusions reached through investigation
The Tools of Aeronautics	LA	SCI.6.SI.15	Identify and explain the limitations of models used to represent the natural world
The Tools of Aeronautics	LA	SCI.6.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
Science of Flight	LA	SCI.6.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Science of Flight	LA	SCI.6.SI.4	Design, predict outcomes, and conduct experiments to answer guiding questions
Science of Flight	LA	SCI.6.SI.6	Select and use appropriate equipment, technology, tools, and metric system units of measurement to make observations
Science of Flight	LA	SCI.6.SI.7	Record observations using methods that complement investigations (e.g., journals, tables, charts)

Science of Flight	LA	SCI.6.SI.8	Use consistency and precision in data collection, analysis, and reporting
Scientific Method(124-144)	LA	SCI.6.SI.1	Generate testable questions about objects, organisms, and events that can be answered through scientific investigation
Scientific Method(124-144)	LA	SCI.6.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Scientific Method(124-144)	LA	SCI.6.SI.4	Design, predict outcomes, and conduct experiments to answer guiding questions
Scientific Method(124-144)	LA	SCI.6.SI.5	Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment
Scientific Method(124-144)	LA	SCI.6.SI.7	Record observations using methods that complement investigations (e.g., journals, tables, charts)
<b>Exploring Aeronautics</b>			
<b>2004 Science</b>			
<b>Grade Level Expectations</b>			
<b>Louisiana Science</b>			
<b>Grade 7</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Tools of Aeronautics(257-326)	LA	SCI.7.SI.14	Develop models to illustrate or explain conclusions reached through investigation
Tools of Aeronautics(257-326)	LA	SCI.7.SI.15	Identify and explain the limitations of models used to represent the natural world
Tools of Aeronautics(257-326)	LA	SCI.7.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
The Tools of Aeronautics	LA	SCI.7.SI.14	Develop models to illustrate or explain conclusions reached through investigation
The Tools of Aeronautics	LA	SCI.7.SI.15	Identify and explain the limitations of models used to represent the natural world
The Tools of Aeronautics	LA	SCI.7.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
Science of Flight	LA	SCI.7.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Science of Flight	LA	SCI.7.SI.4	Design, predict outcomes, and conduct experiments to answer guiding questions
Science of Flight	LA	SCI.7.SI.6	Select and use appropriate equipment, technology, tools, and metric system units of measurement to make observations
Science of Flight	LA	SCI.7.SI.7	Record observations using methods that complement investigations (e.g., journals, tables, charts)
Science of Flight	LA	SCI.7.SI.8	Use consistency and precision in data collection, analysis, and reporting
Scientific Method(124-144)	LA	SCI.7.SI.1	Generate testable questions about objects, organisms, and events that can be answered through scientific investigation
Scientific Method(124-144)	LA	SCI.7.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Scientific Method(124-144)	LA	SCI.7.SI.4	Design, predict outcomes, and conduct experiments to answer guiding questions

Scientific Method(124-144)	LA	SCI.7.SI.5	Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment
Scientific Method(124-144)	LA	SCI.7.SI.12	Use data and information gathered to develop an explanation of experimental results
<b>Exploring Aeronautics</b>			
<b>2004 Science</b>			
<b>Grade Level Expectations</b>			
<b>Louisiana Science</b>			
<b>Grade 8</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Fundamentals of Aeronautics (145-176)	LA	SCI.8.PS.7	Explain the relationships among force, mass, and acceleration
Tools of Aeronautics(257-326)	LA	SCI.8.SI.14	Develop models to illustrate or explain conclusions reached through investigation
Tools of Aeronautics(257-326)	LA	SCI.8.SI.15	Identify and explain the limitations of models used to represent the natural world
Tools of Aeronautics(257-326)	LA	SCI.8.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
How an Airplane Flies	LA	SCI.8.PS.7	Explain the relationships among force, mass, and acceleration
How an Airplane Flies	LA	SCI.8.ESS.39	Relate Newton's laws of gravity to the motions of celestial bodies and objects on Earth
The Tools of Aeronautics	LA	SCI.8.SI.14	Develop models to illustrate or explain conclusions reached through investigation
The Tools of Aeronautics	LA	SCI.8.SI.15	Identify and explain the limitations of models used to represent the natural world
The Tools of Aeronautics	LA	SCI.8.SI.33	Evaluate models, identify problems in design, and make recommendations for improvement
Science of Flight	LA	SCI.8.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Science of Flight	LA	SCI.8.SI.8	Use consistency and precision in data collection, analysis, and reporting
Science of Flight	LA	SCI.8.SI.9	Use computers and/or calculators to analyze and interpret quantitative data
Science of Flight	LA	SCI.8.SI.38	Explain that, through the use of scientific processes and knowledge, people can solve problems, make decisions, and form new ideas
Science of Flight	LA	SCI.8.SI.40	Evaluate the impact of research on scientific thought, society, and the environment
Scientific Method(124-144)	LA	SCI.8.SI.2	Identify problems, factors, and questions that must be considered in a scientific investigation
Scientific Method(124-144)	LA	SCI.8.SI.4	Design, predict outcomes, and conduct experiments to answer guiding questions
Scientific Method(124-144)	LA	SCI.8.SI.5	Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment
Scientific Method(124-144)	LA	SCI.8.SI.8	Use consistency and precision in data collection, analysis, and reporting
Scientific Method(124-144)	LA	SCI.8.SI.9	Use computers and/or calculators to analyze and interpret quantitative data