

<b>Exploring Aeronautics</b>			
<b>2007 Science and Technology</b>			
<b>Learning Results: Parameters for Essential Instruction</b>			
<b>Maine Science and Technology</b>			
<b>Grades 3-5</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Fundamentals of Aeronautics (145-176)	ME	SCT.3-5.D4.a	Predict the effect of a given force on the motion of an object.
Tools of Aeronautics(257-326)	ME	SCT.3-5.B2.f	Modify designs based on results of evaluations.
The Tools of Aeronautics	ME	SCT.3-5.B2.f	Modify designs based on results of evaluations.
Science of Flight	ME	SCT.3-5.A4.a	Measure things to compare sizes, speeds, times, distances, and weights.
Science of Flight	ME	SCT.3-5.B1.b	Plan and safely conduct investigations including simple experiments that involve a fair test.
Science of Flight	ME	SCT.3-5.B1.c	Use simple equipment, tools, and appropriate metric units of measurement to gather data and extend the senses.
Science of Flight	ME	SCT.3-5.B2.a	Identify and explain a simple design problem and a solution related to the problem.
Science of Flight	ME	SCT.3-5.B2.b	Propose a solution to a design problem that recognizes constraints including cost, materials, time, space, or safety.
Scientific Method(124-144)	ME	SCT.3-5.B1.a	Pose investigable questions and seek answers from reliable sources of scientific information and from their own investigations.
Scientific Method(124-144)	ME	SCT.3-5.B1.b	Plan and safely conduct investigations including simple experiments that involve a fair test.
Scientific Method(124-144)	ME	SCT.3-5.B1.d	Use data to construct and support a reasonable explanation.
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<b>Learning Results: Parameters for Essential Instruction</b>			
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<b>Grades 6-8</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Fundamentals of Aeronautics (145-176)	ME	SCT.6-8.D4.e	Describe and apply an understanding of the effects of multiple forces on an object, and how unbalanced forces will cause changes in the speed or direction.
Tools of Aeronautics(257-326)	ME	SCT.6-8.A2.a	Compare different types of models that can be used to represent the same thing (including models of chemical reactions, motion, or cells) in order to match the purpose and complexity of a model to its use.
Tools of Aeronautics(257-326)	ME	SCT.6-8.A2.b	Propose changes to models and explain how those changes may better reflect the real thing.

Tools of Aeronautics(257-326)	ME	SCT.6-8.A4.a	Describe how some things change or work differently at different scales.
Tools of Aeronautics(257-326)	ME	SCT.6-8.B2.c	Communicate a proposed design using drawings and simple models.
Tools of Aeronautics(257-326)	ME	SCT.6-8.B2.e	Evaluate a completed design or product.
Tools of Aeronautics(257-326)	ME	SCT.6-8.B2.f	Suggest improvements for their own and others' designs and try out proposed modifications.
How an Airplane Flies	ME	SCT.6-8.D4.e	Describe and apply an understanding of the effects of multiple forces on an object, and how unbalanced forces will cause changes in the speed or direction.
The Tools of Aeronautics	ME	SCT.6-8.A2.a	Compare different types of models that can be used to represent the same thing (including models of chemical reactions, motion, or cells) in order to match the purpose and complexity of a model to its use.
The Tools of Aeronautics	ME	SCT.6-8.A2.b	Propose changes to models and explain how those changes may better reflect the real thing.
The Tools of Aeronautics	ME	SCT.6-8.A4.a	Describe how some things change or work differently at different scales.
The Tools of Aeronautics	ME	SCT.6-8.B2.c	Communicate a proposed design using drawings and simple models.
The Tools of Aeronautics	ME	SCT.6-8.B2.e	Evaluate a completed design or product.
Science of Flight	ME	SCT.6-8.A2.a	Compare different types of models that can be used to represent the same thing (including models of chemical reactions, motion, or cells) in order to match the purpose and complexity of a model to its use.
Science of Flight	ME	SCT.6-8.A2.b	Propose changes to models and explain how those changes may better reflect the real thing.
Science of Flight	ME	SCT.6-8.A4.a	Describe how some things change or work differently at different scales.
Science of Flight	ME	SCT.6-8.B1.b	Design and safely conduct scientific investigations including experiments with controlled variables.
Science of Flight	ME	SCT.6-8.D4.e	Describe and apply an understanding of the effects of multiple forces on an object, and how unbalanced forces will cause changes in the speed or direction.
Scientific Method(124-144)	ME	SCT.6-8.B1.b	Design and safely conduct scientific investigations including experiments with controlled variables.
Scientific Method(124-144)	ME	SCT.6-8.B1.c	Use appropriate tools, metric units, and techniques to gather, analyze, and interpret data.
Scientific Method(124-144)	ME	SCT.6-8.B1.d	Use mathematics to gather, organize, and present data and structure convincing explanations.

Scientific Method(124-144)	ME	SCT.6-8.B2.g	Explain the design process including the stages of problem identification, solution design, implementation, and evaluation.
Scientific Method(124-144)	ME	SCT.6-8.C1.a	Explain how the type of question informs the type of investigation.