

Pushing the Envelope			
2007 Science			
Curriculum Standards			
Kansas Science			
Grades 5-7			
Activity/Lesson	State	Standards	
History of Aviation Propulsion (pgs. 5-9)	KS	SCI.5-7.7.2.1	The student will research contributions to science throughout history. The student recognizes that new knowledge leads to new questions and new discoveries, replicates historic experiments to understand principles of science, and relates contributions of men and women to the fields of science.
Types of Engines (pgs. 11-23)	KS	SCI.5-7.2.3.2	describes, measures, and represents data on a graph showing the motion of an object (position, direction of motion, speed).
Chemistry (pgs. 25-41)	KS	SCI.5-7.2.1.2	The student will observe, compare, and classify properties of matter. The student compares and contrasts the classes of matter; elements, compounds, and mixtures.
Chemistry (pgs. 25-41)	KS	SCI.5-7.2.2.1	The student will observe, measure, infer, and classify changes in properties of matter. The student understands the relationship of atoms to elements and elements to compounds.
Physics and Math (pgs. 43-63)	KS	SCI.5-7.2.3.1	The student will investigate motion and forces. The student identifies the forces that act on an object (e.g., gravity and friction)
Physics and Math (pgs. 43-63)	KS	SCI.5-7.2.3.3	The student will investigate motion and forces. The student recognizes and describes examples of Newton's Laws of Motion.
Physics and Math (pgs. 43-63)	KS	SCI.5-7.2.4.2	The student will understand and demonstrate the transfer of energy. The student understands that when work is done energy transforms from one form to another, including mechanical, heat, light, sound, electrical, chemical, and nuclear energy, yet is conserved.
Rocket Activity (pgs. 69-75)	KS	SCI.5-7.2.3.1	The student will investigate motion and forces. The student identifies the forces that act on an object (e.g., gravity and friction)
Rocket Activity (pgs. 69-75)	KS	SCI.5-7.2.3.3	The student will investigate motion and forces. The student recognizes and describes examples of Newton's Laws of Motion.
Pushing the Envelope			
2007 Science			
Curriculum Standards			
Kansas Science			
Grades 8-12			
Activity/Lesson	State	Standards	
History of Aviation Propulsion (pgs. 5-9)	KS	SCI.8-12.7.3.1	The student will understand science from historical perspectives. The student demonstrates an understanding of the history of science.

History of Aviation Propulsion (pgs. 5-9)	KS	SCI.8-12.7.3.2	The student will understand science from historical perspectives. The student demonstrates a knowledge that scientific method historically proceeded from an inductive approach rather than a deductive approach.
Types of Engines (pgs. 11-23)	KS	SCI.8-12.2B.1.1	The student will understand the relationships between force and motion. The student understands Newton's Laws and the variables of time, position, velocity, and acceleration can be used to describe the position and motion of particles.
Chemistry (pgs. 25-41)	KS	SCI.8-12.2A.2.1	The students will understand the states and properties of matter. The student understands chemists use kinetic and potential energy to explain the physical and chemical properties of matter on earth that may exist in any of these three states: solids, liquids, and gases.
Chemistry (pgs. 25-41)	KS	SCI.8-12.2A.3.1	The student will gain a basic concept of chemical reactions. The student understands a chemical reaction occurs when one or more substances (reactants) react to form a different chemical substance(s) (products). There are different types of chemical reactions all of which demonstrate the Law of Conservation of Matter and Energy.
Physics and Math (pgs. 43-63)	KS	SCI.8-12.2B.1.1	The student will understand the relationships between force and motion. The student understands Newton's Laws and the variables of time, position, velocity, and acceleration can be used to describe the position and motion of particles.
Rocket Activity (pgs. 69-75)	KS	SCI.8-12.2B.1.1	The student will understand the relationships between force and motion. The student understands Newton's Laws and the variables of time, position, velocity, and acceleration can be used to describe the position and motion of particles.