Smart Skies			
2004 Science			
Standard Course of Study			
North Carolina Science			
Grade 5			
Activity/Lesson	**State**	**Standards**	
Fly by Math	NC	SCI.5.4.04	Determine that an unbalanced force is needed to move an object or change its direction.
Fly by Math	NC	SCI.5.4.05.a	Force. Infer changes in speed or direction resulting from forces acting on an object.
Fly by Math	NC	SCI.5.4.06.b	Evaluate the results of test.
Line Up with Math	NC	SCI.5.4.04	Determine that an unbalanced force is needed to move an object or change its direction.
Smart Skies			
2004 Science			
Standard Course of Study			
North Carolina Science			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Fly by Math	NC	SCI.6.1.06.b	Use appropriate resources and tools to gather, analyze, interpret, and communicate data.
Fly by Math	NC	SCI.6.1.07.b	Prepare models and/or computer simulations to: Evaluate how data fit.
Fly by Math	NC	SCI.6.1.09.b	Use mathematics to gather, organize, and present data.
Smart Skies			
2004 Science			
Standard Course of Study			
North Carolina Science			
Grade 7			
Activity/Lesson	**State**	**Standards**	
Fly by Math	NC	SCI.7.1.06.b	Use appropriate resources and tools to gather, analyze, interpret, and communicate data.
Fly by Math	NC	SCI.7.1.07.b	Prepare models and/or computer simulations to: Evaluate how data fit.
Fly by Math	NC	SCI.7.1.09.b	Use mathematics to gather, organize, and present data.
Fly by Math	NC	SCI.7.1.09.c	Use technologies and information systems to: Visualize data.
Fly by Math	NC	SCI.7.3.06.d	Recording.
Fly by Math	NC	SCI.7.6.03.d	An object's motion is the result of the combined effect of all forces acting on the object:
Fly by Math	NC	SCI.7.6.03.e	A moving object that is not subjected to a force will continue to move at a constant speed in a straight line.
Fly by Math	NC	SCI.7.6.05.b	Explain motion in terms of distance.
Fly by Math	NC	SCI.7.6.05.d	Force. Infer changes in speed or direction resulting from forces acting on an object.

Fly by Math	NC	SCI.7.6.06.a	Investigate and analyze the real world interactions of balanced and unbalanced forces: Sports and recreation.
Line Up with Math	NC	SCI.7.6.03.e	A moving object that is not subjected to a force will continue to move at a constant speed in a straight line.
Smart Skies			
2004 Science			
Standard Course of Study			
North Carolina Science			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Fly by Math	NC	SCI.8.1.06.b	Use appropriate resources and tools to gather, analyze, interpret, and communicate data.
Fly by Math	NC	SCI.8.1.07.b	Prepare models and/or computer simulations to: Evaluate how data fit.
Fly by Math	NC	SCI.8.1.09.b	Use mathematics to gather, organize, and present data.
Fly by Math	NC	SCI.8.1.09.c	Use technologies and information systems to: Visualize data.
Smart Skies			
2004 Science			
Standard Course of Study			
North Carolina Science			
Grades 9-12 (Physical Science)			
Activity/Lesson	**State**	**Standards**	
Fly by Math	NC	SCI.9-12.PS.1.02.e	Collect and record data.
Fly by Math	NC	SCI.9-12.PS.1.02.g	Analyze and interpret data.
Fly by Math	NC	SCI.9-12.PS.2.02.a	In the absence of a force, an object in motion will remain in motion or an object at rest will remain at rest until acted on by an unbalanced force.
Fly by Math	NC	SCI.9-12.PS.2.02.b	Change in motion of an object (acceleration) is directly proportional to the unbalanced outside force and inversely proportional to the mass.
Fly by Math	NC	SCI.9-12.PS.3.02.a	Force. Infer changes in speed or direction resulting from forces acting on an object.
Fly by Math	NC	SCI.9-12.PS.3.02.b	Explain motion in terms of distance.
Smart Skies			
2004 Science			
Standard Course of Study			
North Carolina Science			
Grades 9-12 (Physics)			
Activity/Lesson	**State**	**Standards**	

Fly by Math	NC	SCI.9-12.PH.1.02.e	Collect and record data.
Fly by Math	NC	SCI.9-12.PH.1.02.g	Analyze and interpret data.
Fly by Math	NC	SCI.9-12.PH.1.05.c	Alternative interpretations of the data.
Fly by Math	NC	SCI.9-12.PH.2.02.a	Understand motion in terms of speed, velocity, acceleration and momentum.
Fly by Math	NC	SCI.9-12.PH.2.04.a	Position.
Fly by Math	NC	SCI.9-12.PH.4.01	Determine that an object will continue in its state of motion unless acted upon by a net outside force (Newton's First Law of Motion, The Law of Inertia).
Fly by Math	NC	SCI.9-12.PH.4.05	Assess the independence of the vector components of forces.
Fly by Math	NC	SCI.9-12.PH.4.06	Investigate, measure, and analyze the nature and magnitude of frictional forces.
Fly by Math	NC	SCI.9-12.PH.4.07	Assess and calculate the nature and magnitude of gravitational forces (Newton's Law of Universal Gravitation).
Fly by Math	NC	SCI.9-12.PH.8.01.c	Analyze the relationship among force, charge and distance summarized in Coulomb's law.
Line Up with Math	NC	SCI.9-12.PH.2.02.a	Understand motion in terms of speed, velocity, acceleration and momentum.
Line Up with Math	NC	SCI.9-12.PH.2.04.a	Position.