

Exploring Aeronautics			
2006 Science			
Grade Level Expectations			
Delaware Science			
Grade 5			
Activity/Lesson	State	Standards	
Fundamentals of Aeronautics (145-176)	DE	SCI.5.1.1.20	Demonstrate and explain how forces of different sizes and directions can produce different kinds of changes in the motion of an object.
Airplane Control(209-256)	DE	SCI.5.1.1.20	Demonstrate and explain how forces of different sizes and directions can produce different kinds of changes in the motion of an object.
How an Airplane Flies	DE	SCI.5.1.1.20	Demonstrate and explain how forces of different sizes and directions can produce different kinds of changes in the motion of an object.
Science of Flight	DE	SCI.5.1.1.2	Design and conduct simple to multi-step investigations in order to test predictions. Keep constant all but the condition being tested.
Science of Flight	DE	SCI.5.1.1.3	Accurately collect data using observations, simple tools and equipment. Display and organize data in tables, charts, diagrams, and bar graphs or plots over time. Compare and question results with and from others.
Science of Flight	DE	SCI.5.1.1.5	Communicate procedures, data, and explanations to a variety of audiences. Justify the results by using evidence to form an argument.
Integrating with Aeronautics	DE	SCI.5.1.1.19	Use rulers, meter sticks, tapes, and watches to measure the distance objects travel in a given period of time and how much time it takes for an object to travel a certain distance. Organize the measurements in tables, and construct graphs based on the measurements. Reach qualitative conclusions about the speeds of the objects (faster versus slower).
Integrating with Aeronautics	DE	SCI.5.1.1.20	Demonstrate and explain how forces of different sizes and directions can produce different kinds of changes in the motion of an object.
Scientific Method(124-144)	DE	SCI.5.1.1.1	Generate focused questions and informed predictions about the natural world.
Scientific Method(124-144)	DE	SCI.5.1.1.2	Design and conduct simple to multi-step investigations in order to test predictions. Keep constant all but the condition being tested.
Scientific Method(124-144)	DE	SCI.5.1.1.3	Accurately collect data using observations, simple tools and equipment. Display and organize data in tables, charts, diagrams, and bar graphs or plots over time. Compare and question results with and from others.

Scientific Method(124-144)	DE	SCI.5.1.1.4	Construct a reasonable explanation by analyzing evidence from the data. Revise the explanation after comparing results with other sources or after further investigation.
Scientific Method(124-144)	DE	SCI.5.1.1.5	Communicate procedures, data, and explanations to a variety of audiences. Justify the results by using evidence to form an argument.
Exploring Aeronautics			
2006 Science			
Grade Level Expectations			
Delaware Science			
Grade 6			
Activity/Lesson	State	Standards	
Fundamentals of Aeronautics (145-176)	DE	SCI.6.1.1.13	Give examples of moving objects and identify the forces that act on these objects. Select examples where only one force acts on the object and examples where two or more forces act on the object. Explain that unbalanced forces acting on an object will change its speed, direction of motion or both.
Fundamentals of Aeronautics (145-176)	DE	SCI.6.1.1.14	Conduct investigations to describe how the relative directions of forces simultaneously acting on an object (reinforce or cancel each other) will determine how strongly the combination of these forces influences the motion of the object.
Fundamentals of Aeronautics (145-176)	DE	SCI.6.1.1.15	Conduct investigations and describe how a force can be directed to increase the speed of an object, decrease the speed of the object or change the direction in which the object moves.
How an Airplane Flies	DE	SCI.6.1.1.14	Conduct investigations to describe how the relative directions of forces simultaneously acting on an object (reinforce or cancel each other) will determine how strongly the combination of these forces influences the motion of the object.
How an Airplane Flies	DE	SCI.6.1.1.15	Conduct investigations and describe how a force can be directed to increase the speed of an object, decrease the speed of the object or change the direction in which the object moves.
How an Airplane Flies	DE	SCI.6.3.2.9	Give examples of moving objects and identify the forces that act on these objects. Select examples where only one force acts on the object and examples where two or more forces act on the object. Explain that unbalanced forces acting on an object will change its speed, direction of motion, or both.

Science of Flight	DE	SCI.6.1.1.3	Accurately collect data through the selection and use of tools and techniques appropriate to the investigation. Construct tables, diagrams and graphs, showing relationships between two variables, to display and facilitate analysis of data. Compare and question results with and from other students.
Science of Flight	DE	SCI.6.1.1.13	Give examples of moving objects and identify the forces that act on these objects. Select examples where only one force acts on the object and examples where two or more forces act on the object. Explain that unbalanced forces acting on an object will change its speed, direction of motion or both.
Science of Flight	DE	SCI.6.1.1.14	Conduct investigations to describe how the relative directions of forces simultaneously acting on an object (reinforce or cancel each other) will determine how strongly the combination of these forces influences the motion of the object.
Science of Flight	DE	SCI.6.1.1.15	Conduct investigations and describe how a force can be directed to increase the speed of an object, decrease the speed of the object or change the direction in which the object moves.
Scientific Method(124-144)	DE	SCI.6.1.1.1	Frame and refine questions that can be investigated scientifically, and generate testable hypotheses.
Scientific Method(124-144)	DE	SCI.6.1.1.2	Design and conduct investigations with controlled variables to test hypotheses.
Scientific Method(124-144)	DE	SCI.6.1.1.3	Accurately collect data through the selection and use of tools and techniques appropriate to the investigation. Construct tables, diagrams and graphs, showing relationships between two variables, to display and facilitate analysis of data. Compare and question results with and from other students.
Scientific Method(124-144)	DE	SCI.6.1.1.4	Form explanations based on accurate and logical analysis of evidence. Revise the explanation using alternative descriptions, predictions, models and knowledge from other sources as well as results of further investigation.
Exploring Aeronautics			
2006 Science			
Grade Level Expectations			
Delaware Science			
Grade 8			
Activity/Lesson	State	Standards	
Scientific Method(124-144)	DE	SCI.8.1.1.1	Frame and refine questions that can be investigated scientifically, and generate testable hypotheses.

Scientific Method(124-144)	DE	SCI.8.1.1.2	Design and conduct investigations with controlled variables to test hypotheses.
Scientific Method(124-144)	DE	SCI.8.1.1.4	Form explanations based on accurate and logical analysis of evidence. Revise the explanation using alternative descriptions, predictions, models and knowledge from other sources as well as results of further investigation.