

Future Flight Design			
2000 Science			
Academic Standards			
Indiana Science			
Grade 5			
Activity/Lesson	State	Standards	
Air Transportation Problem	IN	SCI.5.5.5.8	Realize and explain that predictions may be more accurate if they are based on large collections of objects or events.
Air Transportation Problem	IN	SCI.5.5.5.10	Explain the danger in using only a portion of the data collected to describe the whole.
Aircraft Design Problem	IN	SCI.5.5.3.11	Investigate and describe that changes in speed or direction of motion of an object are caused by forces. Understand that the greater the force, the greater the change in motion and the more massive an object, the less effect a given force will have.
Aircraft Design Problem	IN	SCI.5.5.6.1	Recognize and describe that systems contain objects as well as processes that interact with each other.
Future Flight Design			
2000 Science			
Academic Standards			
Indiana Science			
Grade 6			
Activity/Lesson	State	Standards	
Air Transportation Problem	IN	SCI.6.6.1.2	Give examples of different ways scientists investigate natural phenomena and identify processes all scientists use, such as collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations, in order to make sense of the evidence.
Air Transportation Problem	IN	SCI.6.6.1.6	Explain that computers have become invaluable in science because they speed up and extend people's ability to collect, store, compile, and analyze data; prepare research reports; and share data and ideas with investigators all over the world.
Air Transportation Problem	IN	SCI.6.6.1.7	Explain that technology is essential to science for such purposes as access to outer space and other remote locations, sample collection and treatment, measurement, data collection and storage, computation, and communication of information.
Air Transportation Problem	IN	SCI.6.6.2.2	Use technology, such as calculators or computer spreadsheets, in analysis of data.

Aircraft Design Problem	IN	SCI.6.6.7.1	Describe that a system, such as the human body, is composed of subsystems.
Aircraft Design Problem	IN	SCI.6.6.7.3	Identify examples of feedback mechanisms within systems that serve to keep changes within specified limits.
Future Flight Design			
2000 Science			
Academic Standards			
Indiana Science			
Grade 7			
Activity/Lesson	State	Standards	
Air Transportation Problem	IN	SCI.7.7.1.3	Explain why it is important in science to keep honest, clear, and accurate records.
Aircraft Design Problem	IN	SCI.7.7.1.7	Explain how engineers, architects, and others who engage in design and technology use scientific knowledge to solve practical problems.
Aircraft Design Problem	IN	SCI.7.7.3.17	Investigate that an unbalanced force, acting on an object, changes its speed or path of motion or both, and know that if the force always acts toward the same center as the object moves, the object's path may curve into an orbit around the center.
Future Flight Design			
2000 Science			
Academic Standards			
Indiana Science			
Grade 8			
Activity/Lesson	State	Standards	
Air Transportation Problem	IN	SCI.8.8.2.7	Participate in group discussions on scientific topics by restating or summarizing accurately what others have said, asking for clarification or elaboration, and expressing alternative positions.
Air Transportation Problem	IN	SCI.8.8.2.8	Use tables, charts, and graphs in making arguments and claims in, for example, oral and written presentations about lab or fieldwork.
Aircraft Design Problem	IN	SCI.8.8.1.6	Identify the constraints that must be taken into account as a new design is developed, such as gravity and the properties of the materials to be used.
Aircraft Design Problem	IN	SCI.8.8.7.2	Explain that even in some very simple systems, it may not always be possible to predict accurately the result of changing some part or connection.
Aircraft Design Problem	IN	SCI.8.8.7.5	Observe and describe that a system may stay the same because nothing is happening or because things are happening that counteract one another.