

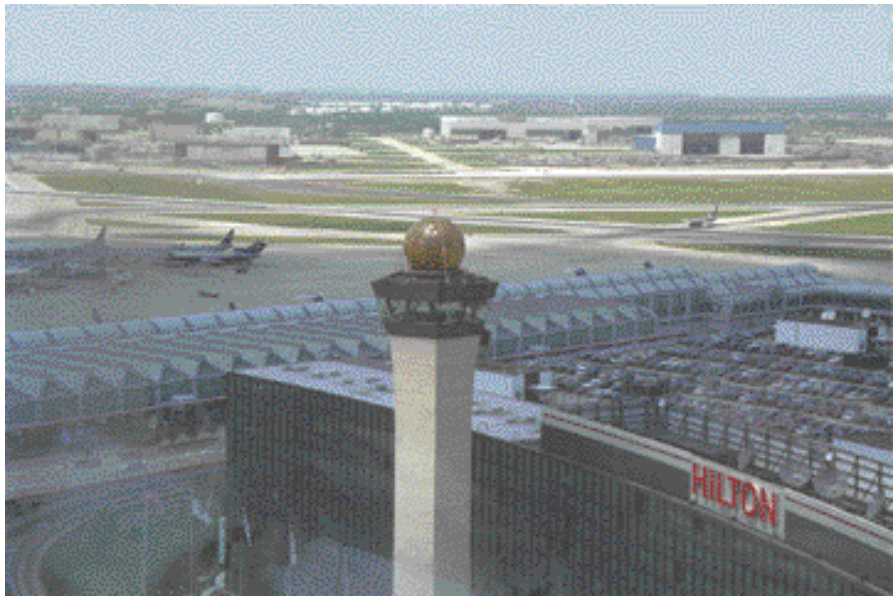
**Aerospace: The Journey of Flight**  
**Part One: The Rich History of Air Power**  
 (Chapters 1-6)

<b>Science Standards</b>	<b>Mathematics Standards</b>	<b>English Language Arts Standards</b>	<b>Social Studies Standards</b>	<b>Technology Standards</b>
Physical Science: <ul style="list-style-type: none"> <li>• Motions and Forces</li> </ul>	1. Number and Operations Standard: <ul style="list-style-type: none"> <li>• Understanding numbers, ways of representing numbers, and number systems.</li> </ul>	1. Reading for Perspective	2. Time, Continuity, and Change	3. Understanding of the relationships among technologies and the connections between technology and other fields of study.
Science and Technology: <ul style="list-style-type: none"> <li>• Abilities of technological design</li> <li>• Understandings about science and technology</li> </ul>	9. Connections Standard: <ul style="list-style-type: none"> <li>• Recognize and apply mathematics in contexts outside of mathematics.</li> </ul>	2. Understanding the Human Experience	6. Power, Authority, and Governance	4. Understanding of the cultural, social, economic, and political effects of technology.
Unifying Concepts and Processes: <ul style="list-style-type: none"> <li>• Evidence, models, and explanations</li> <li>• Form and function</li> </ul>		3. Evaluation Strategies	8. Science, Technology, and Society	6. Understanding of the role of society in the development and use of technology.
		6. Applying Knowledge	9. Global Connections	7. Understanding of the influence of technology on history.
		12. Applying Language Skills		

**Aerospace: The Journey of Flight**  
**Part Two: Principles of Flight and Navigation**  
 (Chapters 7-9)

<b>Science Standards</b>	<b>Mathematics Standards</b>	<b>English Language Arts Standards</b>	<b>Social Studies Standards</b>	<b>Technology Standards</b>
Physical Science: <ul style="list-style-type: none"> <li>• Structure and properties of matter</li> <li>• Motions and forces</li> <li>• Conservation of energy</li> </ul>	1. Number and Operations Standard: <ul style="list-style-type: none"> <li>• Compute fluently and make reasonable estimates.</li> </ul>	3. Evaluation Strategies	8. Science, Technology, and Society	1. Understanding of the characteristics and scope of technology.
Earth and Space Science: <ul style="list-style-type: none"> <li>• Energy in the earth system</li> </ul>	3. Geometry Standard: <ul style="list-style-type: none"> <li>• Specify locations and describe spatial relationships using coordinate geometry and other representations system.</li> </ul>	7. Applying Knowledge		3. Understanding of the relationships among technologies and the connections between technology and other fields of study.
Science and Technology: <ul style="list-style-type: none"> <li>• Abilities of technological design</li> <li>• Understandings about science and technology</li> </ul>	4. Measurement Standard: <ul style="list-style-type: none"> <li>• Understand measurable attributes of objects and the units, systems, and processes of measurement</li> </ul>	12. Applying Language Skills		6. Understanding of the role of society in the development and use of technology.
Science in Personal and Social Perspectives: <ul style="list-style-type: none"> <li>• Science and technology in local, national, and global challenges</li> </ul>	5. Data Analysis and Probability Standard: <ul style="list-style-type: none"> <li>• Select and use appropriate statistical methods to analyze data.</li> <li>• Develop and evaluate inferences and predictions that are based on data.</li> </ul>			8. Understanding of the attributes of design.

				9. Understanding of engineering design.
				10. Understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.



*Airport*

**Aerospace: The Journey of Flight**  
**Part Three: The Aerospace Community**  
 (Chapters 10-17)

<b>Science Standards</b>	<b>Mathematics Standards</b>	<b>English Language Arts Standards</b>	<b>Social Studies Standards</b>	<b>Technology Standards</b>
Physical Science: <ul style="list-style-type: none"> <li>• Motions and forces</li> </ul>	1. Number and Operations Standard: <ul style="list-style-type: none"> <li>• Understanding numbers, ways of representing numbers, relationships among numbers, and number systems.</li> </ul>	1. Reading for Perspective	3. People, Places, and Environments	1. Understanding of the characteristics and scope of technology.
Science and Technology: <ul style="list-style-type: none"> <li>• Abilities of technological design</li> <li>• Understandings about science and technology</li> </ul>	5. Data Analysis and Probability Standard: <ul style="list-style-type: none"> <li>• Develop and evaluate inferences and predictions that are based on data.</li> </ul>	3. Evaluation Strategies	5. Individuals, Groups, and Institutions	3. Understanding of the relationships among technologies and the connections between technology and other fields of study.
Science in Personal and Social Perspectives: <ul style="list-style-type: none"> <li>• Environmental quality</li> <li>• Natural and human-induced hazards</li> <li>• Science and technology in local, national and global challenges</li> </ul>				4. Understanding of the cultural, social, economic, and political effects of technology.
History and Nature of Science: <ul style="list-style-type: none"> <li>• Science as a human endeavor</li> <li>• Nature of scientific knowledge</li> </ul>			10. Civic Ideals and Practices	5. Understanding of the effects of technology on the environment.

<ul style="list-style-type: none"> <li>Historical perspectives</li> </ul>			
			<p>6. Understanding of the role of society in the development and use of technology.</p>
			<p>8. Understanding of the attributes of design.</p>
			<p>10. Understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.</p>

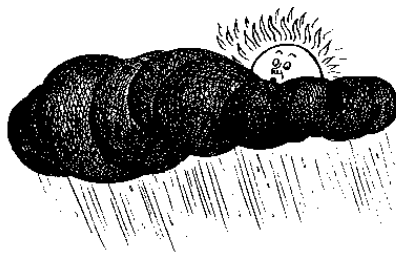


# Aerospace: The Journey of Flight

## Part Four: Air Environment

(Chapters 18-20)

Science Standards	Mathematics Standards	English Language Arts Standards	Social Studies Standards	Technology Standards
Physical Science: <ul style="list-style-type: none"> <li>• Structure and properties of matter</li> <li>• Conservation of energy and the increase in disorder</li> <li>• Interactions of energy and matter</li> </ul>	4. Measurement Standards: <ul style="list-style-type: none"> <li>• Understand measurable attributes of objects and the units, systems, and processes of measurement.</li> <li>• Apply appropriate techniques, tools, and formulas to determine measurements.</li> </ul>	3. Evaluation Strategies	3. People, Places, and Environments	3. Understanding of the relationships among technologies and the connections between technology and other fields of study.
Earth and Space Science: <ul style="list-style-type: none"> <li>• Energy in the earth system</li> </ul>	6. Problem Solving Standard: <ul style="list-style-type: none"> <li>• Solve problems that arise in mathematics and in other contexts.</li> </ul>	12. Applying Language Skills		
Science in Personal and Social Perspectives: <ul style="list-style-type: none"> <li>• Natural and human-induced hazards</li> <li>• Science and technology in local, national, and global challenges</li> </ul>	9. Connections Standard: <ul style="list-style-type: none"> <li>• Recognize and apply mathematics in contexts outside of mathematics.</li> </ul>			
History and Nature of Science: <ul style="list-style-type: none"> <li>• Nature of scientific knowledge</li> </ul>				



**Aerospace: The Journey of Flight**  
**Part Five: Rockets**  
 (Chapters 21-23)

Science Standards	Mathematics Standards	English Language Arts Standards	Social Studies Standards	Technology Standards
Physical Science: <ul style="list-style-type: none"> <li>• Structures and properties of matter</li> <li>• Chemical reactions</li> <li>• Motions and forces</li> <li>• Conservation of energy and increase in disorder</li> <li>• Interactions of energy and matter</li> </ul>	3. Geometry Standards: <ul style="list-style-type: none"> <li>• Use visualization, spatial reasoning, and geometric modeling to solve problems.</li> </ul>	3. Evaluation Strategies	8. Science, Technology, and Society	8. Understanding of the attributes of design.
Science and Technology: <ul style="list-style-type: none"> <li>• Abilities of technological design</li> <li>• Understandings about science and technology</li> </ul>	5. Data Analysis and Probability Standards: <ul style="list-style-type: none"> <li>• Develop and evaluate inferences and predictions that are based on data.</li> </ul>	12. Applying Language Skills		9. Understanding of engineering design.
Science in Personal and Social Perspectives: <ul style="list-style-type: none"> <li>• Science and technology in local, national, and global challenges</li> </ul>	10. Representation Standard: <ul style="list-style-type: none"> <li>• Use representations to model and interpret physical, social and mathematical phenomena.</li> </ul>			10. Understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.
History and Nature of Science: <ul style="list-style-type: none"> <li>• Nature of scientific knowledge</li> </ul>				
Unifying Concepts and Processes: <ul style="list-style-type: none"> <li>• Systems, order and organization</li> </ul>				

**Aerospace: The Journey of Flight**  
**Part Six: Space**  
(Chapters 24 – 27)

<b>Science Standards</b>	<b>Mathematics Standards</b>	<b>English Language Arts Standards</b>	<b>Social Studies Standards</b>	<b>Technology Standards</b>
<p>Life Science:</p> <ul style="list-style-type: none"> <li>The interdependence of organisms</li> <li>Matter, energy, and organization in living systems</li> <li>The behavior of organisms</li> </ul>	<p>1. Number and Operations Standard:</p> <ul style="list-style-type: none"> <li>Understand numbers, ways of representing numbers, relationships among numbers, and number systems</li> </ul>	<p>1. Reading for Perspective</p>	<p>1. Culture</p>	<p>3. Understanding of the relationships among technologies and the connections between technology and other fields of study.</p>
<p>Earth and Space Science:</p> <ul style="list-style-type: none"> <li>The origin and evolution of the earth system</li> <li>The origin and evolution of the universe</li> </ul>	<p>6. Data Analysis and Probability Standard:</p> <ul style="list-style-type: none"> <li>Develop and evaluate inferences and predictions that are based on data.</li> </ul>	<p>2. Understanding the Human Experience</p>	<p>2. Time, Continuity, and Change</p>	<p>4. Understanding of the cultural, social, economic, and political effects of technology.</p>
<p>Science and Technology:</p> <ul style="list-style-type: none"> <li>Abilities of technological design</li> </ul>		<p>3. Evaluation Strategies</p>	<p>3. People, Places, and Environments</p>	<p>6. Understanding of the role of society in the development and use of technology.</p>
<p>Science in Personal and Social Perspectives:</p> <ul style="list-style-type: none"> <li>Natural and human-induced hazards</li> <li>Science and technology in local, national, and global challenges</li> </ul>		<p>6. Applying Knowledge</p>	<p>5. Individuals, Groups, and Institutions</p>	<p>7. Understanding of the influence of technology on history.</p>
<p>History and Nature of Science:</p> <ul style="list-style-type: none"> <li>Science as a human endeavor</li> <li>Historical perspectives</li> </ul>		<p>12. Applying Language Skills</p>	<p>6. Power, Authority, and Governance</p>	
			<p>9. Global Connections</p>	



## Sources for National Standards and Web Sites

1. National Science Standards – National Research Council  
<http://www.nap.edu/readingroom/books/nses/html>
2. National Mathematics Standards – National Council of Teachers of Mathematics  
<http://standards.nctm.org/document/index.htm>
3. National English Language Arts Standards – National Council of Teachers of English  
<http://www.ncte.org/standards/standards.shtml>
4. National Social Studies Standards – National Council for the Social Studies  
<http://www.ncss.org/standards/toc.html>
5. National Technology Standards – International Technology Education Association  
<http://www.iteawww.org/TAA/Listing.htm>
6. National Physical Education Standards – Association for Sport & Physical Education  
[http://www.ed.gov/databases/ERIC\\_Digests/ed406361.html](http://www.ed.gov/databases/ERIC_Digests/ed406361.html)
7. National Health Standards – American Association for Health Education  
[http://www.ed.gov/databases/ERIC\\_Digests/ed387483.html](http://www.ed.gov/databases/ERIC_Digests/ed387483.html)
8. National Music Standards – National Committee for Standards in the Arts (Music Educators National Conference)  
<http://www.menc.org/>
9. National Visual Arts Standards – National Committee for Standards in the Arts  
<http://www.education-world.com/standards/national/arts/index.shtml>