

	ADE CURRICULUM NTO AVIATION E		
Unit 1: Aviatio	on 101	No. of Sessions	Day of
		Per Lesson	Semester
Pre-Course Exa	am		1
<u></u>			_
Section A – Int	roduction to Aviation and Aerospace		
Lesson 1	Introduction to Aerospace Studies	1	2
Lesson 2	Engineering Practices in Action	3	5
Lesson 3	Aviation Careers Are For You!	1	6
Section B – Ov	erview of Commercial, Military, and General Avia	ition	
Lesson 1	Introduction to Commercial Aviation	1	7
Lesson 2	Introduction to Military Aviation	1	8
Lesson 3	Introduction to General Aviation	1	9
<u>Section C – Int</u>	roduction to Unmanned Aircraft Systems		
Lesson 1	UAS Fundamentals	2	11
Lesson 2	UAS Operation and Safety	1	12
Section D – Int	roduction to Space Exploration		
Lesson 1	Current and Future Space Exploration	3	15
<u>Unit 1 Exam</u>		1	16
Total Sessions Unit 1 16			
Semester Tota	il 📃 16		



Unit 2: Taking	Flight—Early Aviation Innovations		
		No. of Sessions	Day of
		Per Lesson 🛛 🤞	Semester
<u>Section A – Av</u>	iation's Primitive Beginnings		
Lesson 1	Flight in Greek Mythology	1	17
Lesson 2	Da Vinci and His Flying Machines	2	19
<u>Section B – Lig</u>	hter Than Air		
Lesson 1	Hot Air and Gas Ballooning	4	23
<u>Section C – Gl</u>	iders 🔨		
Lesson 1	From Birds to Gliders	1	24
Lesson 2	Glider Flight and Early Innovators	3	27
<u>Section D – Pc</u>	wered, Controlled Flight		
Lesson 1	The "Wright" Approach	2	29
Lesson 2	Build and Test a Wind Tunnel	6	35
Lesson 3	The "Wright" Attitude	1	36
<u>Unit 2 Exam</u>		1	37
Total Sessions Unit 2 21			

Total Sessions Unit 2 Semester Total

37



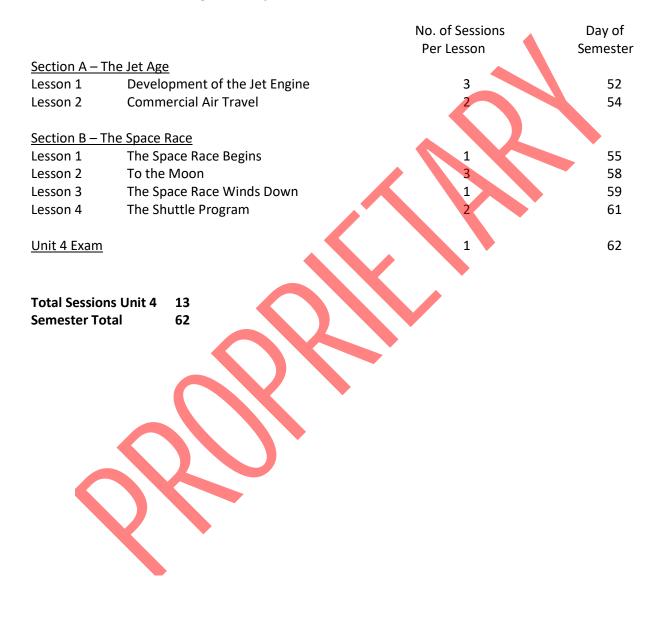
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Unit 3: From Theory to Practical Reality—Rapid Developments in Powered Flight			
		No. of Sessions Per Lesson	Day of Semester
<u>Section A – Firs</u> Lesson 1 Lesson 2 Lesson 3	<u>st Practical Applications of Airplanes, Commercial</u> Beginnings of U.S. Commercial Airline Service Aviation and World War I Airmail and the Transcontinental Airway System	1 2	38 40 41
<u>Section B – Wo</u> Lesson 1	omen in Early Aviation Women in Early Aviation	2	43
<u>Section C – Wc</u> Lesson 1 Lesson 2	orld War II Aviation Innovation and World War II One For All, All For One	3 2	46 48
<u>Unit 3 Exam</u>		1	49
Total Sessions Unit 3 12 Semester Total 49			



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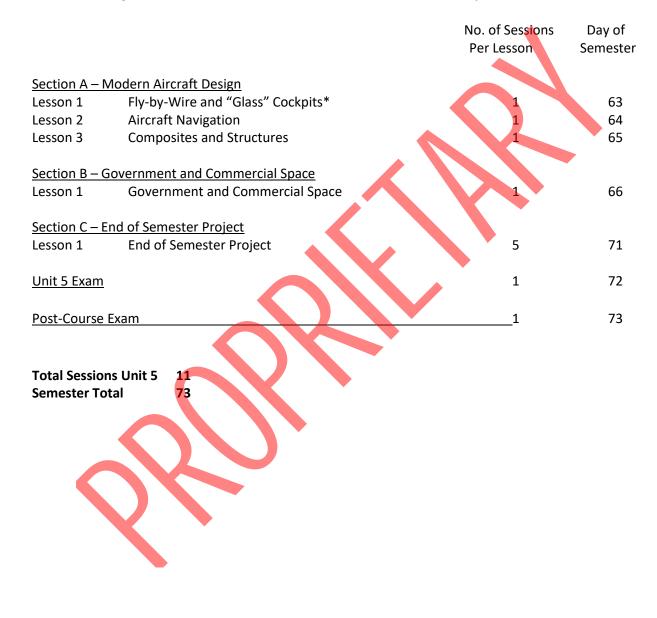
Unit 4: To the Stars—Making Jet and Space Travel Possible





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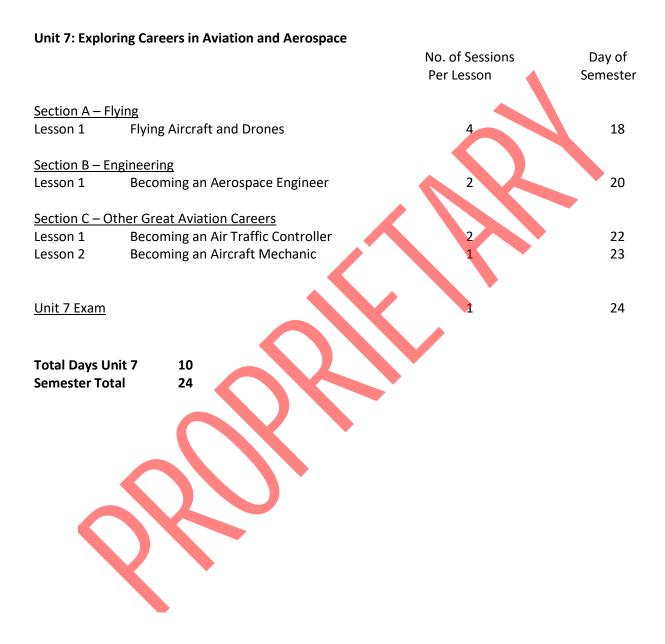
Unit 5: Creating the Future—What's New and Next in Aviation and Aerospace





NINTH GRADE CURRICULUM EXPLORING AVIATION AND AEROSPACE SEMESTER TWO				
Unit 6: Aviatic Pre-Course Exa	on Safety and Oversight	No. of Sessions Per Lesson	Day of Semester 1	
Pre-Course Exa			T	
<u>Section A – Ro</u>	le of Government in Aviation Safety			
Lesson 1	Fundamentals of Aviation Safety	2	3	
Lesson 2	The Federal Aviation Administration	2	5	
Section B – Ac	cident Investigation			
Lesson 1	The Investigative Process	3	8	
Lesson 2	Accident Case Study	3	11	
<u>Section C – Av</u>	Section C – Aviation Weather Services			
Lesson 1	Aviation Weather Reports and Forecasting	2	13	
<u>Unit 6 Exam</u>		1	14	
Total Sessions	Unit 6 14			
Semester Tota	al 14			







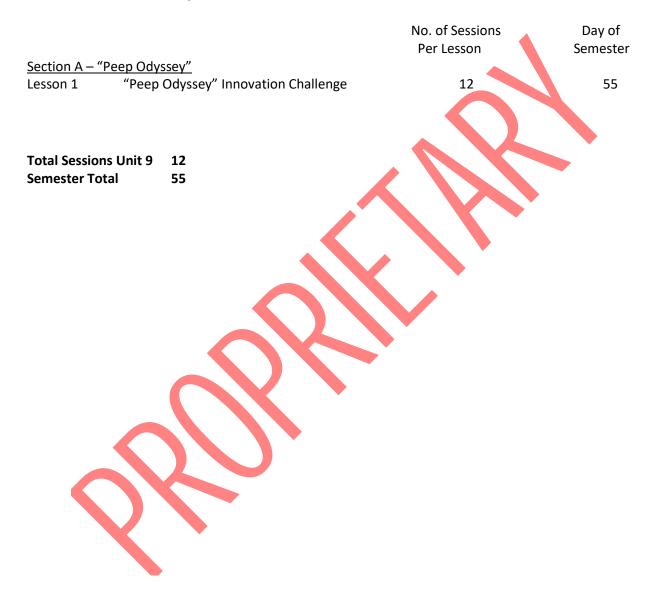
Unit 8: Aviation Innovation and Problem Solving

		No. of Sessions	Day of	
		Per Lesson	Semester	
Section A – Going Green				
Lesson 1	Reducing Aviation's Environmental Impact	3	27	
<u>Section B – M</u>	odernizing Airspace			
Lesson 1	Next Generation Air Transportation System	1	28	
Lesson 2	Integrating Drones	3	31	
<u>Section C – Fu</u>	iture Aircraft			
Lesson 1	Supersonic Aircraft	3	34	
Lesson 2	Autonomous Aircraft	3	37	
Lesson 3	Electric Aircraft	2	39	
		•		
<u>Section D – Fu</u>	<u>uture Space Travel</u>			
Lesson 1	Colonizing Space	3	42	
<u>Unit 8 Exam</u>		1	43	
Total Days Ur	Total Days Unit 8 19			
Semester Total 43				



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Unit 9: Innovation Challenge





Unit 10: Thinking About a Career in Aviation	Unit 10: Thinking About a Career in Aviation			
	No. of Sessions	Day of		
	Per Lesson	Semester		
<u>Section A – Preparing for an Aviation Career</u>				
Lesson 1 Developing a Mission Statement*	2	57		
Lesson 2 Investigating Education Options After High School*	2	59		
Section B – Developing Professionalism				
Lesson 1 Professional Skills and Conduct*	2	61		
Lesson 2 Building Communication Skills*	2	63		
Section C – Career Planning Project				
Lesson 1 Building a Career Portfolio*	5	68		
Unit 10 Exam	1	69		
Post-Course Exam	1	70		
Total Days Unit 10 15				
Semester Total 70				