

Pilot in Command

* The following lessons are designed for grades 9-12

Lesson Title	Pg	Grade Level	Academic Standards	Activity Description
The versatile Viking	6	10	3.2.10 B, C & D	Build model rockets and experiment with fin placement to maximize height flow
Altitude advisors	8	11	2.9.11 G & I; 2.10.11 B	Measure altitude of a rocket using a protractor
Future pilot	10	11	1.8.11 B; 13.1.11 C & G	Research requirements to become a pilot like getting a license and learning physical requirements
Ace instructor	12	11	1.6.11 A, C & F; 1.8.11 A, B & C	Decide on an aerospace research topic. Teach topic using media and asking questions of audience.
Cross country	14	11	2.4.11 B; 2.5.11 A	Decide most fuel-efficient route based on info given
		12	7.4.12 A	Learn how airplanes deal with wind while navigating
Knowledgeable navigators	16	11	1.6.11 C & D	Lead a group discussion on navigation technology
		9-12	1.8.11 A, B & C; 7.1.9 A; 7.1.12 A	Decide on, research and present info on a navigation technique
Astronaut aerobics	18	9-10	3.2.10 B; 10.4.9 C	Experiment with different activities and heart rate
		12	10.1.12 B	Learn about effects space travel has on the body
Brouhaha box kite	20	11	2.3.11 A & C; 2.10.11 B	Make measurements to build a box kite. Use Pythagorean theorem for some measurements.
Care in the air	24	11	1.4.11 B & C; 1.5.11 A, B, C, D, E, F & G	Write a proposal for the best helicopter for a hospital to use
		11	1.8.11 B & C	Research helicopters for hospital use
		12	6.3.12 B	Decide what helicopter is the best investment
Elevator magic	26	10-12	3.2.10 B; 3.2.12 B	Experiment with weighing in an elevator
		12	3.4.12 C	Learn about acceleration and gravity
Circle of power	28	11	1.6.11 D	Discuss getting involved with local issues
		11	1.8.11 A, B & C	Research an airport issues and draw a map of power
		12	5.2.9 C; 5.2.12 C	Learn how to resolve an issue or get involved with a local issue
My personal qualities	30	11	1.8.11 A & C	Research a career of interest
		11	13.1.11 A & F	Students analyze what skills they have related to their career of interest

Academic Standards for Reading, Writing, Speaking and Listening met:

Types of Writing: 1.4.11 B C
Quality of Writing: 1.5.11 A B C D E F G
Speaking & Listening: 1.6.11 A C D F
Research: 1.8.11 A B C

Academic Standards for Mathematics met:

Measurement & Estimation: 2.3.11 A C
Mathematical Reasoning & Connections: 2.4.11 B
Mathematical Problem Solving & Communication: 2.5.11 A
Geometry: 2.9.11 G I
Trigonometry: 2.10.11 B

Academic Standards for Science and Technology met:

Computation & Estimation: 3.2.10 B C D; 3.2.12 B
Physical Science, Chemistry & Physics: 3.4.12 C

Academic Standards for Civics & Government met:

Rights & Responsibilities of Citizenship: 5.2.9 C; 5.2.12 C

Academic Standards for Economics met:

Scarcity & Choice: 6.3.12 B

Academic Standards for Geography met:

Basic Geographic Literacy: 7.1.9 A; 7.1.12 A
The Interactions Between People & Places: 7.4.12 A

Academic Standards for Health, Safety & Physical Education met:

Concepts of Health: 10.1.12 B
Physical Activity: 10.4.9 C

Proposed Academic Standards for Career Education and Work met:

Career Awareness & Preparation: 13.1.11 A C F G