

Exploring Aeronautics			
2009 Mathematics			
Content Standards			
Montana Mathematics			
Grades 5-8			
Activity/Lesson	State	Standards	
Fundamentals of Aeronautics (145-176)	MT	MA.5-8.2.1	Collect data from a variety of contexts (e.g., science, history, and culture, including Montana American Indians). Organize and represent data in box plots, scatter plots, histograms, and circle graphs using technology when appropriate.
Airplane Control(209-256)	MT	MA.5-8.3.1	Define, classify and compare properties of solids and plane figures, including lines and angles.
The Tools of Aeronautics	MT	MA.5-8.2.3	Create sample spaces and simulations from events found in different cultures, including those of Montana American Indians, determine experimental and theoretical probabilities, and use probability to make predictions.
The Resource Center	MT	MA.5-8.1.1	Recognize, model, and compare different forms of integers and rational numbers including percents, fractions, decimals, and numbers using exponents and scientific notation.
Science of Flight	MT	MA.5-8.2.1	Collect data from a variety of contexts (e.g., science, history, and culture, including Montana American Indians). Organize and represent data in box plots, scatter plots, histograms, and circle graphs using technology when appropriate.
Science of Flight	MT	MA.5-8.2.2	Interpret, analyze, and evaluate data using mean, median, range, and quartiles to identify trends and make decisions and predictions about data within scientific and cultural contexts, including those of Montana American Indians.
Integrating with Aeronautics	MT	MA.5-8.1.1	Recognize, model, and compare different forms of integers and rational numbers including percents, fractions, decimals, and numbers using exponents and scientific notation.
Integrating with Aeronautics	MT	MA.5-8.1.2	Select and apply appropriate estimation strategies to judge the reasonableness of solutions to problems including those computed on a calculator. Demonstrate correct use of order of operations.
Integrating with Aeronautics	MT	MA.5-8.1.4	Compute fluently and solve multi-step problems using integers, fractions, decimals, and numbers in exponential form.
Integrating with Aeronautics	MT	MA.5-8.3.5	Develop informal arguments to verify geometric relationships and solve problems such as an informal justification of the Pythagorean Theorem in a variety of contexts.

Integrating with Aeronautics	MT	MA.5-8.4.1	Create and use tables, graphs or diagrams, symbolic expressions, and verbal descriptions to represent, analyze, and generalize a variety of patterns involving numbers and operations.
Integrating with Aeronautics	MT	MA.5-8.4.2	Identify linear and non-linear functional relationships and contrast their properties using tables, graphs, or equations with appropriate technology.
Integrating with Aeronautics	MT	MA.5-8.4.4	Recognize, simplify, and generate equivalent forms of algebraic expressions, justifying each step with properties of operations.
Intro to Aeronautics (109-123)	MT	MA.5-8.2.2	Interpret, analyze, and evaluate data using mean, median, range, and quartiles to identify trends and make decisions and predictions about data within scientific and cultural contexts, including those of Montana American Indians.