

Pushing the Envelope			
2005 Mathematics			
Model Content Standards			
Colorado Mathematics			
Grades 5-8			
Activity/Lesson	State	Standards	
Types of Engines (pgs. 11-23)	CO	MA.5-8.5.1	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems: estimate, use, and describe measures of distance, perimeter, area, volume, capacity, weight, mass, and angle comparison;
Types of Engines (pgs. 11-23)	CO	MA.5-8.5.4	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems: develop and use formulas and procedures to solve problems involving measurement;
Chemistry (pgs. 25-41)	CO	MA.5-8.5.1	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems: estimate, use, and describe measures of distance, perimeter, area, volume, capacity, weight, mass, and angle comparison;
Chemistry (pgs. 25-41)	CO	MA.5-8.5.4	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems: develop and use formulas and procedures to solve problems involving measurement;
Chemistry (pgs. 25-41)	CO	MA.5-8.5.5	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems: describe how a change in an object's linear dimensions affects its perimeter, area, and volume; and
Physics and Math (pgs. 43-63)	CO	MA.5-8.1.4	Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems: use the relationships among fractions, decimals, and percents, include the concepts of ratio and proportion, in problem-solving situations;

Physics and Math (pgs. 43-63)	CO	MA.5-8.2.2	Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems: describe patterns using variables, expressions, equations, and inequalities in problem-solving situations;
Physics and Math (pgs. 43-63)	CO	MA.5-8.5.4	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems: develop and use formulas and procedures to solve problems involving measurement;
Rocket Activity (pgs. 69-75)	CO	MA.5-8.5.4	Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems: develop and use formulas and procedures to solve problems involving measurement;
Pushing the Envelope			
2005 Mathematics			
Model Content Standards			
Colorado Mathematics			
Grades 9-12			
Activity/Lesson	State	Standards	
Physics and Math (pgs. 43-63)	CO	MA.9-12.2.2	Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems: represent functional relationships using written explanations, tables, equations, and graphs, and describing the connections among these representations;