

Pushing the Envelope			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 5			
Activity/Lesson	State	Standards	
Physics and Math (pgs. 43-63)	TN	MA.5.GLE 0506.3.2	Develop and apply the concept of variable.
Pushing the Envelope			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 6			
Activity/Lesson	State	Standards	
Types of Engines (pgs. 11-23)	TN	MA.6.GLE 0606.3.4	Use expressions, equations and formulas to solve problems.
Chemistry (pgs. 25-41)	TN	MA.6.GLE 0606.3.4	Use expressions, equations and formulas to solve problems.
Physics and Math (pgs. 43-63)	TN	MA.6.GLE 0606.2.3	Understand and use ratios, rates and percents.
Physics and Math (pgs. 43-63)	TN	MA.6.GLE 0606.3.2	Interpret and represent algebraic relationships with variables in expressions, simple equations and inequalities.
Physics and Math (pgs. 43-63)	TN	MA.6.GLE 0606.3.4	Use expressions, equations and formulas to solve problems.
Rocket Activity (pgs. 69-75)	TN	MA.6.GLE 0606.3.4	Use expressions, equations and formulas to solve problems.
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2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grade 7			
Activity/Lesson	State	Standards	
Types of Engines (pgs. 11-23)	TN	MA.7.GLE 0706.4.2	Apply proportionality to converting among different units of measurements to solve problems involving rates such as motion at a constant speed.
Chemistry (pgs. 25-41)	TN	MA.7.GLE 0706.4.3	Understand and use scale factor to describe the relationships between length, area, and volume.
Physics and Math (pgs. 43-63)	TN	MA.7.GLE 0706.2.4	Use ratios, rates and percents to solve single- and multi-step problems in various contexts.
Physics and Math (pgs. 43-63)	TN	MA.7.GLE 0706.3.2	Understand and compare various representations of relations and functions.
Physics and Math (pgs. 43-63)	TN	MA.7.GLE 0706.4.2	Apply proportionality to converting among different units of measurements to solve problems involving rates such as motion at a constant speed.
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2008 Mathematics			

Curriculum Standards			
Tennessee Mathematics			
Grades 9-12 (Algebra I)			
Activity/Lesson	State	Standards	
Types of Engines (pgs. 11-23)	TN	MA.9-12.CLE 3102.3.5	Manipulate formulas and solve literal equations.
Chemistry (pgs. 25-41)	TN	MA.9-12.CLE 3102.3.5	Manipulate formulas and solve literal equations.
Physics and Math (pgs. 43-63)	TN	MA.9-12.CLE 3102.3.5	Manipulate formulas and solve literal equations.
Physics and Math (pgs. 43-63)	TN	MA.9-12.CLE 3102.3.6	Understand and use relations and functions in various representations to solve contextual problems.
Rocket Activity (pgs. 69-75)	TN	MA.9-12.CLE 3102.3.5	Manipulate formulas and solve literal equations.
Pushing the Envelope			
2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grades 9-12 (Geometry)			
Activity/Lesson	State	Standards	
Types of Engines (pgs. 11-23)	TN	MA.9-12.CLE 3108.4.6	Generate formulas for perimeter, area, and volume, including their use, dimensional analysis, and applications.
Chemistry (pgs. 25-41)	TN	MA.9-12.CLE 3108.4.6	Generate formulas for perimeter, area, and volume, including their use, dimensional analysis, and applications.
Physics and Math (pgs. 43-63)	TN	MA.9-12.CLE 3108.4.6	Generate formulas for perimeter, area, and volume, including their use, dimensional analysis, and applications.
Rocket Activity (pgs. 69-75)	TN	MA.9-12.CLE 3108.4.6	Generate formulas for perimeter, area, and volume, including their use, dimensional analysis, and applications.
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2008 Mathematics			
Curriculum Standards			
Tennessee Mathematics			
Grades 9-12 (Algebra II)			
Activity/Lesson	State	Standards	
Physics and Math (pgs. 43-63)	TN	MA.9-12.CLE 3103.3.2	Understand, analyze, transform and generalize mathematical patterns, relations and functions using properties and various representations.
Physics and Math (pgs. 43-63)	TN	MA.9-12.CLE 3103.3.4	Graph and compare equations and inequalities in two variables. Identify and understand the relationships between the algebraic and geometric properties of the graph.