

<b>Pushing the Envelope</b>			
<b>2002 Mathematics</b>			
<b>Academic Standards</b>			
<b>Pennsylvania Mathematics</b>			
<b>Grade 5</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
History of Aviation Propulsion (pgs. 5-9)	PA	MA.5.2.3.5.A	Select and use appropriate instruments and units for measuring quantities (e.g., perimeter, volume, area, weight, time, temperature).
History of Aviation Propulsion (pgs. 5-9)	PA	MA.5.2.2.5.G	Apply estimation strategies to a variety of problems including time and money.
Chemistry (pgs. 25-41)	PA	MA.5.2.3.5.A	Select and use appropriate instruments and units for measuring quantities (e.g., perimeter, volume, area, weight, time, temperature).
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<b>2002 Mathematics</b>			
<b>Academic Standards</b>			
<b>Pennsylvania Mathematics</b>			
<b>Grade 8</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Types of Engines (pgs. 11-23)	PA	MA.8.2.3.8.D	Estimate, use and describe measures of distance, rate, perimeter, area, volume, weight, mass and angles.
Chemistry (pgs. 25-41)	PA	MA.8.2.3.8.A	Develop formulas and procedures for determining measurements (e.g., area, volume, distance).
Chemistry (pgs. 25-41)	PA	MA.8.2.3.8.D	Estimate, use and describe measures of distance, rate, perimeter, area, volume, weight, mass and angles.
Chemistry (pgs. 25-41)	PA	MA.8.2.3.8.E	Describe how a change in linear dimension of an object affects its perimeter, area and volume.
Physics and Math (pgs. 43-63)	PA	MA.8.2.1.8.D	Apply ratio and proportion to mathematical problem situations involving distance, rate, time and similar triangles.
Physics and Math (pgs. 43-63)	PA	MA.8.2.2.8.D	Estimate amount of tips and discounts using ratios, proportions and percents.
Physics and Math (pgs. 43-63)	PA	MA.8.2.8.8.G	Represent relationships with tables or graphs in the coordinate plane and verbal or symbolic rules.
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<b>2002 Mathematics</b>			
<b>Academic Standards</b>			
<b>Pennsylvania Mathematics</b>			
<b>Grade 11</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Physics and Math (pgs. 43-63)	PA	MA.11.2.8.11.Q	Represent functional relationships in tables, charts and graphs.