

**Rice University School Mathematics Project  
Curriculum – Summer Campus Program 2007**

<b>Mathematical Concepts</b>						<b>Processes</b>
	<b>Number &amp; Operations</b>	<b>Patterns, Functions, &amp; Algebra</b>	<b>Geometry &amp; Spatial Sense</b>	<b>Measurement</b>	<b>Data Analysis &amp; Statistics Probability</b>	
<b>Pre K – 2</b>	<ul style="list-style-type: none"> <li>• Whole number concepts &amp; operations</li> <li>• Numeration</li> <li>• Place value</li> </ul>	<ul style="list-style-type: none"> <li>• Sorting by attributes</li> <li>• Patterns and relationships</li> </ul>	<ul style="list-style-type: none"> <li>• Shapes &amp; their properties</li> </ul>	<ul style="list-style-type: none"> <li>• Non-standard measurement systems</li> </ul>	<ul style="list-style-type: none"> <li>• Simple probability</li> <li>• Interpreting data</li> </ul>	Concept Sequencing
<b>3 - 4</b>	<ul style="list-style-type: none"> <li>• Whole number concepts &amp; operations</li> <li>• Fraction and decimal concepts &amp; operations</li> </ul>	<ul style="list-style-type: none"> <li>• Factors &amp; multiples</li> <li>• Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Plane figures</li> <li>• Congruence, similarity</li> <li>• Transformations</li> <li>• Solid figures</li> </ul>	<ul style="list-style-type: none"> <li>• Measurement systems</li> <li>• Perimeter, area</li> </ul>	<ul style="list-style-type: none"> <li>• Simple probability</li> <li>• Interpretative data</li> </ul>	Problem Solving Reasoning & Proof Communicating Connecting Representing
<b>5 - 7</b>	<ul style="list-style-type: none"> <li>• Fractions, decimals, percents, concepts &amp; operations</li> <li>• Integer concepts &amp; operations</li> </ul>	<ul style="list-style-type: none"> <li>• Variable</li> <li>• Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Polygons</li> <li>• Transformations</li> <li>• Spatial geometry</li> </ul>	<ul style="list-style-type: none"> <li>• Perimeter, area, volume, surface area</li> <li>• Measurement systems</li> </ul>	<ul style="list-style-type: none"> <li>• Central tendency</li> <li>• Theoretical &amp; experimental probability</li> </ul>	
<b>8 - Algebra I</b>	<ul style="list-style-type: none"> <li>• Ratio &amp; proportion</li> <li>• Integer concepts &amp; operations</li> </ul>	<ul style="list-style-type: none"> <li>• Polynomials</li> <li>• Slope</li> <li>• Linear &amp; non-linear functions</li> </ul>	<ul style="list-style-type: none"> <li>• Area, surface area, perimeter, volume</li> <li>• Logic</li> <li>• Nets</li> <li>• Transformations</li> <li>• Pythagorean Theorem</li> </ul>	<ul style="list-style-type: none"> <li>• Area, surface area, perimeter, volume</li> <li>• Pythagorean Theorem</li> </ul>	<ul style="list-style-type: none"> <li>• Statistics</li> <li>• Theoretical &amp; experimental probability</li> </ul>	
<b>Geometry and Beyond</b>	<ul style="list-style-type: none"> <li>• Limits</li> <li>• Proportionality</li> <li>• Parametric equations</li> </ul>	<ul style="list-style-type: none"> <li>• Parent functions</li> <li>• Transformations</li> <li>• Rate of change</li> <li>• Function development &amp; application</li> <li>• Proportionality</li> <li>• Asymptotes</li> <li>• Trigonometry</li> <li>• Polar coordinates and equations</li> <li>• Sequences and Series</li> </ul>	<ul style="list-style-type: none"> <li>• Proportionality</li> <li>• Area</li> <li>• Pythagorean Theorem</li> <li>• Logic</li> <li>• Transformations</li> <li>• Polygon Properties</li> <li>• Van Hiele levels</li> <li>• Angles</li> <li>• Parallel Lines</li> </ul>	<ul style="list-style-type: none"> <li>• Perimeter, area, volume</li> <li>• Circumference</li> </ul>	<ul style="list-style-type: none"> <li>• Mathematical models</li> <li>• Regression analysis</li> </ul>	