

**Rice University School Mathematics Project  
Curriculum – Summer Campus Program 2004**

<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 – 4</b>	<ul style="list-style-type: none"> <li>• Whole number concepts &amp; operations</li> <li>• Numeration</li> <li>• Place value</li> <li>• Fractions</li> </ul>	<ul style="list-style-type: none"> <li>• Balance &amp; equalities</li> <li>• Factors &amp; multiples</li> <li>• Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Shapes &amp; their properties</li> <li>• Congruence</li> <li>• Transformations</li> </ul>	<ul style="list-style-type: none"> <li>• Standard &amp; non-standard systems</li> <li>• Perimeter &amp; area</li> <li>• Time &amp; temperature</li> </ul>	<ul style="list-style-type: none"> <li>• Chance</li> <li>• Simple probability</li> <li>• Interpretive data</li> </ul>	<p>Concept Sequencing</p> <p>Problem Solving Reasoning &amp; Proof Communicating Connecting Representing</p>
<b>5 - 6</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</li> <li>• Measurement systems</li> </ul>	<ul style="list-style-type: none"> <li>• Central tendency</li> <li>• Theoretical &amp; experimental probability</li> </ul>	
<b>7 - 8</b>	<ul style="list-style-type: none"> <li>• Fractions, decimals, &amp; operations</li> <li>• Factors &amp; multiples</li> <li>• Ratio &amp; proportion</li> <li>• Integer concepts &amp; operations</li> <li>• Order of operations</li> <li>• Proportional reasoning</li> <li>• Dimensional analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Variables</li> <li>• Polynomials</li> <li>• Informal patterns</li> <li>• Formal patterns &amp; functions</li> <li>• Rate of change</li> <li>• Linear &amp; non-linear functions</li> </ul>	<ul style="list-style-type: none"> <li>• Area, surface area, perimeter, volume</li> <li>• Nets</li> <li>• Transformations</li> <li>• Similarity &amp; congruence</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>• Measures of central tendency</li> <li>• Theoretical &amp; experimental probability</li> </ul>	
<b>Algebra &amp; Above</b>	<ul style="list-style-type: none"> <li>• Limits</li> <li>• Direct &amp; inverse variation</li> <li>• Proportionality</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>• Linear &amp; non-linear functions</li> <li>• Proportionality</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>• Non-Euclidean Geometries</li> </ul>	<ul style="list-style-type: none"> <li>• Perimeter, area, volume</li> <li>• Circumference</li> <li>• Precision</li> </ul>	<ul style="list-style-type: none"> <li>• Mathematical models</li> <li>• Regression analysis</li> </ul>	