

# Rice University School Mathematics Project

## Curriculum – Summer 1998

“The curriculum is conceptually based . . .” *NCTM*

Grades K – 2	Grades 3, 4	Grades 5, 6	Grades 7, 8	High School
Patterns & Relations Number Concepts & Operations Measurement/Estimation Shapes, Properties Chance	Number Concepts & Operations Patterns Transformations Measurement Geometric Shapes, Properties Experimental Probability Statistics - Central Tendency	Geometry - Circles, Polygons, Spatial Transformations Experimental Probability Statistics – Central Tendency Measurement - Linear, Area, Volume Patterns Number Concepts & Operations	Patterns & Functions Variables & Equality Rationals, Irrationals, & Integers Ratio & Proportion Pythagorean Theorem Probability – Simple, Compound, & Theoretical Statistics - Measures of Central Tendency	Patterns & Functions Algebraic Expressions Algebraic Equations Geometric Shapes, Properties Measurement - Length, Area, Volume Modeling
MANIPULATIVES	MANIPULATIVES	MANIPULATIVES	MANIPULATIVES	MANIPULATIVES
Snap Together Blocks Place Value Blocks & Mat Unifix Cubes Color Tiles Color Cubes Tangrams Cuisenaire Rods Connecting People Geoboards/Peg Boards Money, Clocks, Thermometer, Measuring Tools (S and NS) Dominos/Dice Pattern & Attribute Blocks MIRAs Hundreds Chart	Base Ten Blocks Pattern Blocks Geoboards Tangrams 2-Color Counters Linker Cubes Pentominos Dice Coins Dominoes MIRAs Hundreds Chart Cuisenaire Rods	Geoboards Geoblocks Attribute Blocks Cubes MIRAs Patty Paper Base Ten Blocks Hundreds Chart Dice Spinners Marbles Pattern Blocks Toothpicks 2-Color Counters Cuisenaire Rods Tangrams Rainbow Cubes Dominoes	Rainbow Cubes Lab Gear and/or Algebra Tiles Tangrams Cuisenaire Rods Geoboards Geoblocks 2-Color Counters Patty Paper Pattern Blocks Linker Cubes Number Cubes (Dice)	Geoboards MIRAs Patty Paper Construction Tools Rainbow Cubes Algebra Tiles/Lab Gear Logic/Attribute Blocks Measurement Tools

*In addition to in-depth concept development appropriate for each age group, reasoning, solving problems, organizing and analyzing data, communicating solutions mathematically, and using manipulatives, calculators and computers are emphasized throughout.*

<b>GRADE</b>	<b>NUMBER</b>	<b>MEASUREMENT</b>	<b>GEOMETRY</b>	<b>STATISTICS &amp; PROBABILITY</b>	<b>PATTERNS &amp; FUNCTIONS</b>
<b>K-2</b>	<ul style="list-style-type: none"> <li>◆ Number Concepts</li> <li>◆ Operations</li> </ul>	<ul style="list-style-type: none"> <li>◆ Estimation/Measurement</li> </ul>	<ul style="list-style-type: none"> <li>◆ Shapes &amp; Properties</li> </ul>	<ul style="list-style-type: none"> <li>◆ Chance</li> </ul>	<ul style="list-style-type: none"> <li>◆ Patterns &amp; Relations</li> </ul>
<b>3, 4</b>	<ul style="list-style-type: none"> <li>◆ Number Concepts &amp; Operations</li> </ul>	<ul style="list-style-type: none"> <li>◆ Measurement</li> <li>Linear Area</li> </ul>	<ul style="list-style-type: none"> <li>◆ Transformations</li> <li>◆ Geometric Shapes &amp; Properties</li> </ul>	<ul style="list-style-type: none"> <li>◆ Experimental Probability</li> <li>◆ Central Tendency</li> </ul>	<ul style="list-style-type: none"> <li>◆ Patterns</li> </ul>
<b>5, 6</b>	<ul style="list-style-type: none"> <li>◆ Number Concepts &amp; Operations</li> </ul>	<ul style="list-style-type: none"> <li>◆ Measurement</li> <li>Linear Area</li> <li>Volume</li> </ul>	<ul style="list-style-type: none"> <li>◆ Cycles, Polygons, Spatial Transformations</li> </ul>	<ul style="list-style-type: none"> <li>◆ Experimental Probability</li> <li>◆ Central Tendency</li> </ul>	<ul style="list-style-type: none"> <li>◆ Patterns</li> </ul>
<b>7, 8</b>	<ul style="list-style-type: none"> <li>◆ Rationals, Integers, Irrationals</li> <li>◆ Ratio &amp; Proportion</li> </ul>		<ul style="list-style-type: none"> <li>◆ Pythagorean Theorem</li> </ul>	<ul style="list-style-type: none"> <li>◆ Probability: Theoretical &amp; Compound</li> <li>◆ Measurement of Central Tendency</li> </ul>	<ul style="list-style-type: none"> <li>◆ Patterns &amp; Function</li> <li>◆ Variables &amp; Equality</li> </ul>
<b>High School</b>		<ul style="list-style-type: none"> <li>◆ Measurement</li> <li>Area</li> <li>Volume</li> </ul>	<ul style="list-style-type: none"> <li>◆ Geometric Shapes &amp; Properties</li> </ul>		<ul style="list-style-type: none"> <li>◆ Algebraic Expressions</li> <li>◆ Algebraic Equations</li> <li>◆ Modeling</li> <li>◆ Patterns &amp; Functions</li> </ul>