CURRICULUM MAP FOR GRADE Algebra I

(Suggested timeline for introducing content and process standards – some overlap all four quarters)

GLEs/GSEs NCTM Standards	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1. **Number and Operations** (content)	• Relative magnitude 1.1.1 • Proportion, percent, ratio, rate 1.2.1 • Solves problems 1.2.2 • Mental computations, perfect square, cubes 1.3.1 • Estimation • Properties 1.5.1 • Simplify computation 1.5.2 • Benchmark problems # 1.1.5, 1.2.5, 1.3.3, 1.4.5, 1.5.5	• Mental computations, perfect square, cubes 1.3.1 • Benchmark problem # 1.3.3	• Mental computations, perfect square, cubes 1.3.1 • Benchmark problem # 1.3.3	• Mental computations, perfect square, cubes 1.3.1 • Benchmark problem # 1.3.3
2. **Geometry and Measurement**	• Pythagorean Theorem 2.2.2 • Perimeter, area, surface area, volume 2.5.1 • Units of measure 2.6.1 • Benchmark problem # 2.2.4, 2.5.3	• Perimeter, area, surface area, volume 2.5.1 • Units of measure 2.6.1 • Coordinate plane 2.7.1 • Slope/y-intercept 2.7.2 • Benchmark problem # 2.5.3, 2.6.3, 2.7.4	• Perimeter, area, surface area, volume 2.5.1 • Units of measure 2.6.1 • Benchmark problem # 2.5.3, 2.6.3	• Perimeter, area, surface area, volume 2.5.1 • Units of measure 2.6.1 • Benchmark problem # 2.5.3, 2.6.3

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3. Functions and Algebra	• Simplifying expressions 3.3.1 • Solving equations (linear) 3.4.1 • Solving multistep equations 3.4.2 • Benchmark problems # 3.3.4, 3.4.7	• Patterns 3.1.1 • Vocabulary of functions 3.1.2 • Function notation 3.1.3 • Linear vs. nonlinear 3.1.4 • Linear/absolute value 3.2.1 • Changes in variables 3.2.2 • Different representations 3.2.3 • Forms of linear equations (various) 3.2.4 • Linear equations & inequalities • Benchmark problems # 3.1.6, 3.2.6, 3.4.7	• Exponential functions 3.2.1 • Expressions with exponents and polynomials 3.3.1 • Linear systems 3.4.1 • Systems of inequalities 3.4.4 • Benchmark problems # 3.2.6, 3.3.4, 3.4.7	• Quadratics 3.2.1 • Simplifying polynomials 3.3.2 • Solving quadratics, graphing, quadratic formula 3.4.5 • Benchmark problems # 3.2.6, 3.3.4, 3.4.7

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4. Data, Statistics, and Probability (content)		• Scatter plots, box-and whiskers 4.1.1 • Line of best fit 4.2.1 • Histogram 4.3.1 • Counting techniques 4.4.1 • Experimental/theoretical probability 4.5.1 • Teacher student generated questions 4.6.1 • Benchmark problems # 4.1.3, 4,2,3, 4.3.3, 4.4.3, 4.5.3, 4.6.3		
5. Problem Solving, Reasoning and Proof (process)	• Problem solving strategies 5.1 • Mathematical reasoning and proof 5.2	• Problem solving strategies 5.1 • Mathematical reasoning and proof 5.2	• Problem solving strategies 5.1 • Mathematical reasoning and proof 5.2	• Problem solving strategies 5.1 • Mathematical reasoning and proof 5.2
6. Communication, Representation, and connections (process)	• Communicate understanding 6.1 • Create and use representations 6.2 • Mathematical connections 6.3	• Communicate understanding 6.1 • Create and use representations 6.2 • Mathematical connections 6.3	• Communicate understanding 6.1 • Create and use representations 6.2 • Mathematical connections 6.3	• Communicate understanding 6.1 • Create and use representations 6.2 • Mathematical connections 6.3