

Curriculum Mapping and Pacing Guide

Grade/Course Algebra 1Grading Period 1st 9-weeks (44 days)

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
7 days	Variables and Expressions <ul style="list-style-type: none"> Evaluate numerical expressions Evaluate verbal expression for given replacement values of the variables Evaluate square root and absolute value Field Properties 	A.1 A.4b	Textbook Section 1-1 thru 1-5 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) - Traffic Jam Lesson - Evaluating and Simplifying Expressions DOE Project Graduation – Lesson 1 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: Enrichment Lesson 1-5 The Distributive Property Activity pg. 28 (textbook)	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Variable, algebraic expression, coefficient, distributive property, square root, radical, radicand
4 days	Rational Numbers <ul style="list-style-type: none"> Adding Subtracting Multiplying Dividing 	A.1	Textbook Section 2-2 thru 2-4 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: Henrico Co: Algebra 1 Online!	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Opposites, additive inverses
12 days	Solving linear equations and inequalities <ul style="list-style-type: none"> One step equations Two step equations and inequalities. Multi-step equations and inequalities. Equations and inequalities with variable on each side of equation. Ratio and proportion equations Percent of change Solving literal equations (formulas) for a specific variable Justifications of each step in solving equations and inequalities Solve real-world problems involving inequalities and equations 	A.1 A.4a A.4b A.4d A.4f A.5a A.5b A.5c	Textbook Section Chapter 3 & Sect 6-1, 6-2, 6-3 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 23-33 DOE Project Graduation – Lesson 5 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: Solving equations backwards Section 3-4 (textbook) Capture – Recapture Activity (proportional equation)	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Equation, inequality, solution, expression, real numbers; addition, multiplication, closure, identity, inverse, reflective, symmetric, transitive, and substitution properties of equality.

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<p>16 days</p>	<p>Statistics Box and Whisker Plot</p> <ul style="list-style-type: none"> • Central Tendencies • Measure of Variation • Quartiles and Inter Quartile range • Outliers <p>New SOL A.9</p> <ul style="list-style-type: none"> • Mean absolute deviations • Standard deviation • Z-scores 	<p>A.10 A.9</p>	<p>Textbook Section 2-5, 13-4, 13-5</p> <p>2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) Pg. 2-17</p> <p>DOE Project Graduation Lesson 10 Algebra 1 Online! Henrico Co.</p>	<p>Teacher made test (Most problems will mimic the released SOL test items)</p> <p>Activity: Have students collect data to use for unit calculations.</p>	<p>Textbook Algebra 1 Glencoe Mathematics</p> <p>Essential Vocabulary: Measure of central tendencies, box and whisker plot</p>
<p>5 days</p>	<p>9 Week Benchmark Review and Testing</p>	<p>A.1 A.4a A.4b A.4d A.5a A.5b A.5c A.10 A.9</p>	<p>Released Test Items www.jlab.org www.ig.poquoson.org</p>	<p>County Wide Benchmark Test Interactive Achievement</p>	

Grade/Course: Algebra 1**Grading Period: 2nd 9-weeks (45 days)**

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
5 days	Square Roots & Cube Roots <ul style="list-style-type: none"> Classify Compare Simplify Multiply Rationalize Radical Form 	A.3	Textbook Section 2-7, 11-1, & 11-2 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) <ul style="list-style-type: none"> Estimating Square Roots & Cube Roots Simplifying Square Roots & Cube Roots DOE HS Math Instructional resources Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items)	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Square root, non perfect square, radical, radicand, cube root
13 days	Linear Relations and Functions <ul style="list-style-type: none"> Coordinate Plane Relations Functions Inverse Functions Machine Domain and Range Use and find rules for patterns 	A.7a A.7b A.7c, A.7e A.7f	Textbook Section 4-1, 4-3, 4-4, 4-6, 4-8 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 107- 110 DOE Project Graduation – Lesson 9 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: “Function or Not?” Sierpinski’s Triangle Function Machine	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Function, relations, output, input, ordered pair, domain, range, zero’s of the function, equation, constant, independent and dependent variable.
5 days	Slope of Line Determine the slope of a line when given... <ul style="list-style-type: none"> an equation of the line. the graph of the line two points on the line Rate of change <ul style="list-style-type: none"> positive, negative, zero, undefined 	A.6a	Textbook Section Chapter 5 Section 5-1 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 57-61 and 65-70 DOE Project Graduation – Lesson 6 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: “Treasure Hunt”	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Slope, positive slope, negative slope, zero slope, undefined slope, rate of change
6 days	Direct Variations <ul style="list-style-type: none"> Analyze a relation to determine whether a direct <i>or inverse</i> variation exists. Direct Variation (graphically and algebraically) Inverse Variation (algebraically) 	A.8	Textbook Section Chapter 5 Section 5-1 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 80 DOE Project Graduation – Lesson 9 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items)	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Direct variation, constant of variation, inverse variation

5 days	<p>Writing Equations of a line Write the equation of a line when given the....</p> <ul style="list-style-type: none"> • Graph of the line • Two points on the line • Slope and a point on the line. 	A.6b	<p>Textbook Section 5-3 and 5-4</p> <p>2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 75 - 79</p> <p>DOE Project Graduation Lesson 7 Algebra 1 Online! Henrico Co.</p>	<p>Teacher made test (Most problems will mimic the released SOL test items)</p> <p>Activity: Graphic Design – Floor Tile (Part Two) Investigating Slope Intercept Form – pg. 271 (textbook)</p>	<p>Textbook Algebra 1 Glencoe Mathematics</p> <p>Essential Vocabulary: Slope, y-intercept, horizontal and vertical line.</p>
7 days	<p>Graphing</p> <ul style="list-style-type: none"> • Linear functions • Linear inequalities • x- and y- intercepts • zeros of a function 	A.7d A.7c A.7f	<p>Textbook Section 5-3, 6-6</p> <p>2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 63-74</p> <p>DOE Project Graduation Lesson 7 Algebra 1 Online! Henrico Co.</p>	<p>Teacher made test (Most problems will mimic the released SOL test items)</p> <p>Activity: Graphic Design – Floor Tile (Part One)</p>	<p>Textbook Algebra 1 Glencoe Mathematics</p> <p>Essential Vocabulary: Linear function, slope, x- and y- intercepts, transformation, graph of a line, zeros of a function, vertical and horizontal lines</p>
4 days	9 Week Benchmark Review and Testing		<p>Released Test Items www.jlab.org www.ig.poquoson.org</p>	<p>County Wide Benchmark Test Interactive Achievement</p>	

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
7 days	Linear Best Fit <ul style="list-style-type: none"> Mathematical models will include linear and quadratic functions 	A.11	Textbook Section 5-7 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 79 DOE Project Graduation – Lesson 10 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: “Beam Strength” “Length of Foot vs. Height”	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Line of best fit, prediction
13 days	Systems <ul style="list-style-type: none"> Equations Inequalities Solve algebraically and by graphing 	A.4e A.4f A.5d	Textbook Section Chapter 7 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 35 - 47 DOE Project Graduation Lesson 8 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: Linear Programming (simple – 3 equations using using x and y axis as two constraints) “Paper Clips and Pennies”	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Ordered pair, no solution, infinite solutions, reasonableness
5 days	Monomials <ul style="list-style-type: none"> Multiply Divide Scientific Notation 	A.2a	Textbook Section Sections 8-1, 8-2, 8-3 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 93-97 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items)	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Algebraic expression, laws of exponents, exponents, base, coefficient, monomial, scientific notation
12 days	Polynomials <ul style="list-style-type: none"> Monomial times Polynomial Polynomial times polynomial Divide Polynomials Add and subtract polynomials 	A.2b	Textbook Section 8-4 thr 8-8 and 12-5 2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov) pg. 98 DOE Project Graduation – Lesson 2 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: Algebra Tiles	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Algebraic expression, laws of exponents, exponents, base, coefficient, monomial, distributive property, binomials, trinomials, polynomials
7 days	9 Week Benchmark Review and Testing		Released Test Items www.jlab.org www.iq.poquoson.org	County Wide Benchmark Test Interactive Achievement	

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
12 days	Factoring Polynomials <ul style="list-style-type: none"> • Common Factor • Trial and Error • Grouping • Difference of squares • Sum and difference of cubes 	A.2c	Textbook Chapter 9 2001 SOL Algebra Scope and Sequence Guide www.doe.virginia.gov pg. 99-100 DOE Project Graduation Lesson 4 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: Algebra Tiles CBR data collecting ball bounce, rolling can, jumping up and down, etc.	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Algebraic expression, laws of exponents, exponents, base, coefficient, monomial, distributive property, binomials, trinomials, polynomials, factor
8 days	Solving Quadratic Equations <ul style="list-style-type: none"> • Equations • Inequalities • Solving by Graphing only 	A.4c A.7c A.7e	Textbook Section 10-1, 10-2, 10-4 2001 SOL Algebra Scope and Sequence Guide www.doe.virginia.gov pg. 101-103, 107-108 DOE Project Graduation Lesson 9 Algebra 1 Online! Henrico Co.	Teacher made test (Most problems will mimic the released SOL test items) Activity: Linear Programming (simple – 3 equations using using x and y axis as two constraints) "Paper Clips and Pennies"	Textbook Algebra 1 Glencoe Mathematics Essential Vocabulary: Quadratic expressions, equations and functions, parabola, roots, zeros of a function
5 weeks	SOL Review SOL Testing Enrichment Exam Review and Exam	ALL			SOL Review is divided up into unequal time. The percentage of time each strand is reviewed is based on the blueprint.