2014-2015

Curriculum Mapping and Pacing Guide

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

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
12 days	**Variables and Expressions** • 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	**Pearson 1-1; 1-2; 1-4; 1-7** **Glencoe 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) **Interactive Notebook** Pages 1-17	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Variable, algebraic expression, coefficient, distributive property, square root, radical, radicand
20 days	**Solving linear equations and inequalities** • 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 • 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.4a A.4b A.4d A.4f A.5a A.5b A.5c	**Pearson 2-1 thru 2-5; 2-6; 2-7** **Glencoe 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) Leaf Activity (teacher made) **Interactive Notebook** Pages 18 - 35	**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.

2014-2015

12 days	**Statistics** Box and Whisker Plot • Central Tendencies • Measure of Variation • Quartiles and Inter Quartile range • Outliers New SOL A.9 • Mean absolute deviations • Standard deviation • Z-scores • Variance	A.10 A.9	**Glencoe Textbook Section 2-5, 13-4, 13-5** **2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov)** Pg. 2-17 **DOE Project Graduation** Lesson 10 **Algebra 1 Online! Henrico Co.**	**Teacher made test** (Most problems will mimic the released SOL test items) **Activity:** Have students collect data to use for unit calculations. **Interactive Notebook** Pages 36 - 49	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Measure of central tendencies, box and whisker plot

2014-2015

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

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
2 days	**Statistics** Review and Test	A.9 A.10			
7 days	**Square Roots & Cube Roots** • Classify • Compare • Simplify • Multiply • Rationalize • Radical Form	A.3	**Glencoe Textbook Section 2-7, 11-1, & 11-2** **2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov)** - 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) **Interactive Notebook** Pages 50 - 57	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Square root, non perfect square, radical, radicand, cube root
days	**Linear Relations and Functions** • 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	**Glencoe 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?" Sierpenski's Triangle Function Machine **Interactive Notebook** Pages 58 - 69	**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.

2014-2015

12 days	**Slope of Line** Determine the slope of a line when given… • an equation of the line. • the graph of the line • two points on the line Rate of change • positive, negative, zero, undefined **Writing Equations of a line** Write the equation of a line when given the…. • Graph of the line • Two points on the line • Slope and a point on the line. • Horizontal and vertical	A.6a A.6b	**Glencoe Textbook Section Chapter 5 Section 5-1** **2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov)** pg. 57-61, 65-70, 75 - 79 **DOE Project Graduation** – Lesson 6 & 7 **Algebra 1 Online! Henrico Co.**	**Teacher made test** (Most problems will mimic the released SOL test items) **Activity:** "Treasure Hunt" Graphic Design – Floor Tile (Part Two) Investigating Slope Intercept Form – pg. 271 (textbook) **Interactive Notebook** Pages 70 - 79	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Slope, positive slope, negative slope, zero slope, undefined slope, rate of change, , y-intercept, horizontal and vertical line.
5 days	**MIDTERM REVIEW**				
2 days	**MIDTERM TEST**				
6 days	**Graphing** • Linear functions • Linear inequalities • x- and y- intercepts • zeros of a function **Line and Curve of Best Fit** • Mathematical models will include linear and quadratic functions	A.7d A.7c A.7f A.11	**Glencoe Textbook Section 5-3, 6-6** **2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov)** pg. 63-74 **DOE Project Graduation** Lesson 7 **Algebra 1 Online! Henrico Co.** **Glencoe 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:** Graphic Design – Floor Tile (Part One) "Beam Strength" "Length of Foot vs. Height" **Teacher made test** (Most problems will mimic the released SOL test items) **Interactive Notebook:** Pages 80 - 91	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Linear function, slope, x- and y-intercepts, transformation, graph of a line, zeros of a function, vertical and horizontal lines, Line of best fit, prediction
1 day	**Science/Civics/Earth Science SOL Testing**				

2014-2015

Grade/Course: Algebra 1 **Grading Period: 3rd 9-weeks (47 days)**

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
4 days	**Graphing (Continued)** • Linear functions • Linear inequalities • x- and y- intercepts • zeros of a function **Line and Curve of Best Fit** • Mathematical models will include linear and quadratic functions	A.7d A.7c A.7f A.11	**Glencoe Textbook Section 5-3, 6-6** **2001 SOL Algebra Scope and Sequence Guide (www.doe.virginia.gov)** pg. 63-74 **DOE Project Graduation** Lesson 7 **Algebra 1 Online! Henrico Co.** **Glencoe 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:** Graphic Design – Floor Tile (Part One) "Beam Strength" "Length of Foot vs. Height" **Teacher made test** (Most problems will mimic the released SOL test items) **Interactive Notebook:** Pages 80 - 91	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Linear function, slope, x- and y-intercepts, transformation, graph of a line, zeros of a function, vertical and horizontal lines, Line of best fit, prediction
6 days	**Direct Variations** • Analyze a relation to determine whether a direct *or inverse* variation exists. • Direct Variation (graphically and algebraically) • Inverse Variation (algebraically)	A.8	**Glencoe 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) **Interactive Notebook:** Pages 92 - 103	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Direct variation, constant of variation, inverse variation
9 days	**Systems** • Equations • Inequalities • Solve algebraically and by graphing	A.4e A.4f A.5d	**Glencoe 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" **Interactive Notebook:** Pages 104 - 113	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Ordered pair, no solution, infinite solutions, reasonableness

2014-2015

8 days	**Monomials** • Multiply • Divide • Scientific Notation • Square Roots of Monomial Algebraic Expressions	A.2a A.3	**Glencoe 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) **Interactive Notebook:** Pages 113 - 129	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Algebraic expression, laws of exponents, exponents, base, coefficient, monomial, scientific notation
12 days	**Polynomials** • Monomial times Polynomial • Polynomial times polynomial • Divide Polynomials • Add and subtract polynomials	A.2b	**Glencoe 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 Teachers Pay Teachers Packet	**Textbook** Algebra 1 Glencoe Mathematics **Essential Vocabulary:** Algebraic expression, laws of exponents, exponents, base, coefficient, monomial, distributive property, binomials, trinomials, polynomials
2 days	**Writing SOL**				
6 days	**Factoring Polynomials** • Common Factor • Trial and Error • Grouping • Difference of squares • Sum and difference of cubes	A.2c	**Glencoe 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 Teachers Pay Teachers Packet 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

2014-2015

Grade/Course: Algebra 1 **Grading Period: 4th 9-weeks (44 days)**

Time Frame	Unit/SOL	SOL #	Resources	Assessments	Notes
5 days	**Solving Quadratic Equations** • Equations • Inequalities • Solving by Graphing only	A.4c A.7c A.7e	**Glencoe 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.** **SOL Review is completed before Memorial Day Weekend.**		
1.5 days	**Cumulative Test** **Interactive Achievement**	ALL			
2.5 days	**Packet #1**		Properties Square Roots & Cube Roots Evaluating Expressions (Numerical & Algebraic) Translating Equations and Inequalities Equations Inequalities Using Algebra to Solve Word Problems		
2.5 days	**Packet # 2**		Relations and Functions Function Notation & Evaluating Functions Zeros of a Function Slope The Slope- Formula Slope-Intercept Form Standard Form Graphing Linear Equations		
3.5 days	**Packet #3**		Writing Linear Equations – Give a Point and Slope Writing Linear Equations – Given Two Points Line of Best Fit Direct Variation vs Inverse Variation		
5 days	**Packet # 4**		Systems of Equations Solving Systems of Equations by Graphing and Algebraically Word Problems Graphing Linear Inequalities Graphing Systems of Linear Inequalities		

2014-2015

2.5 days	**Packet # 5**		Exponent Rules Simplifying Polynomials Simplifying Non-Perfect Square Roots and Cube Roots (Radical Form) Monomial Square Roots Factoring
2.5 days	**Statistics Review**		
2 days	**Released Test** **Interactive Achievement**	ALL	
2 days	**Review Released Test** **Catch Up on Weak Areas**		