Algebra I (Middle School) Pacing Guide

This Pacing Guide was revised in June 2017.

Chapters referenced are from old adopted text, Glencoe: Algebra I.

KEY:

Blue = 2016 SOL standard

Black = 2009 and 2016 standard

Red = 2009 SOL standard

SOL #	Standards	Textbook
First Quarter		
A.1a	a) The student will represent verbal quantitative situations algebraically	1-1, 3-1
A.1b	b) The student will evaluate algebraic expressions for given replacement values of the variables	1-2
A.3a	a) The student will simplify square roots of whole numbers and monomial algebraic expressions	2-7
A.3b	b) The student will simplify cube roots of integers	2-7, supplement
A.4a, A.4d	a) The student will solve multistep linear equations in one variable algebraically	3-4, 3-5, 1-4,1-5,1-6
A.4a,b EKS, A.4b	The student will justify steps used in simplifying expressions and solving equations.	1-4,1-5,1-6
A.5a	a) The student will solve multistep linear inequalities in one variable algebraically and represent the solution graphically	6-3
A.4c, A.4a	c) The student will solve literal equations for a specified variable	supplement
A.6a	a) The student will determine the slope of a line when given an equation of the line, the graph of the line, or two points on the line	5-1, 5-3
A.6b	b) The student will write the equation of a line when given the graph of the line, two points on the line, or the slope and a point on the line (including parallel and perpendicular)	5-4, 5-6
Second Quarter		
A.6c	c) The student will graph linear equations in two variables	4-5
A.8	The student, given a data set or practical situation, will analyze a relation to determine whether a direct or inverse variation exists, and represent a direct variation algebraically and graphically and an inverse variation algebraically	5-2,12-1
A.7	The student will investigate and analyze linear function families and their characteristics both algebraically and graphically	
A.7a	a) The student will determining whether a relation is a function	4-6
A.7b	b) The student will identify domain and range	4-3
A.7c	c) The student will identify zeros	4-5
A.7d	d) The student will identify intercepts	4-5
A.7 e	e) The student will solve for values of a function for elements in its domain	4-4, 4-6
A.7f	f) The student will make connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs	4-3
Third Quarter		
A.4d, A.4e	d) The student will solve systems of two linear equations in two variables algebraically and graphically	7-1, 7-2, 7-3, 7-4
A.4e, A.4f	e) The student will solve practical problems involving equations and systems of equations	Chapter 3, Chapter 7
A.5b, A.6	b) The student will represent the solution of linear inequalities in two variables graphically	6-6
A.5c	c) The student will solve practical problems involving inequalities	Chapter 6

A.5d	d) The student will represent the solution to a system of inequalities graphically	7-5
A.2a	a) The student will be applying the laws of exponents to perform operations on expressions	8-1, 8-2
A.2b	b) The student will be adding, subtracting, multiplying, and dividing polynomials	8-5, 8-6, 8-7, 8-8, 12-2
A.3c	c) The student will simplify numerical expressions containing square or cube roots	11-1, supplement
A.2c	c) The student will factor completely first- and second-degree binomials and trinomials in one variable	Chapter 9
A.2	The student will identify prime polynomials	
Fourth Quarter		
A.4b, A.4c	b) The student will solve quadratic equations in one variable algebraically (including quadratic formula)	9-3, 9-4, 9-5, 9-6, 10-4
A.7b	b) The student will investigate and analyze quadratic function families and their characteristics both algebraically and graphically, including domain and range	10-1
A.7c	c) The student will investigate and analyze quadratic function families and their characteristics both algebraically and graphically, including zeros	10-2, 10-4
A.7d	d) The student will investigate and analyze quadratic function families and their characteristics both algebraically and graphically, including intercepts	10-2, supplement
A.9, A.11	The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of linear and quadratic functions	5-7, supplement
A.10	The student will compare and contrast multiple univariate data sets, using box-and-whisker plots	13-5
A.9	The student will interpret variation in real-world contexts and calculate and interpret standard deviation, and z-scores; calculate and interpret mean absolute deviation	13-4, supplement