

Algebra I Block

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	This course also emphasizes reteaching any topics that are found to be under grade level for the current group of students.			
	Early assessment of each class is necessary to identify what topics need to be retaught. Reteaching of these topics is required IN ADDITION to the Algebra I topics below.			
(revised 2008)	Levels: I - introduced; P - practiced; M - mastered		Current Text	
CONCEPT	SKILLS	LEVEL	Chapter	STATE GOALS
I. Numerical Operations			1 & 2	
	1. Classification of Numbers	IP		6A4
	2. Order of Operations	PM		6A4
	3. Properties of Real Numbers (emphasis on fractions)	PM		6A4
	4. Algebraic expressions	P		6A4
	5. distributive property	P		6A4
	6. absolute value of numbers	P		6A4
II. Linear Equations			3	
	1. solve linear equations	P		8D4
	a. One & two step equations - balancing method	P		8D4
	b. Multi-step equations - balancing method	P		8D4
	c. Variables on both sides	P		8D4
	d. Decimal equations	I, P		8D4
	2. word problems	I, P		8D4
	3. solve literal equations	I, P		8D4
	4. apply formulas	I, P		8D4
III. Functions			throughout	
	1. input/output; domain/range	I, P		1
	2. functions & relations; vertical line test	I, P		4
	3. quadratic functions	I, P		9
	4. exponential growth/decay functions	I, P		8
	5. absolute value	I, P	supplement	
IV. Linear Functions and Graphing			4 & 5	
	1. coordinate plane - plotting points	P		8D4
	2. Graphing lines	I, P		8D4
	a. T- table	I, P		
	b. Slope- intercept	I, P		
	c. X & y intercepts	I, P		
	3. slope of lines - positive, negative, zero, undefined	I, P		8D4

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	4. write equations of lines - given graph, two points, slope and point	I, P		8D4	
	a. Slope-intercept form	I, P			
	b. Point-slope form	I, P			
	c. Standard form	I, P			
	5. Direct variation	I, P		8D4	
	6. applied problems - line of best fit; interpolation, extrapolation	I, P		8D4	
V. Inequalities				6	
	1. solving linear inequalities	I, P		8D4	
	a. Simple - one & two step	I, P			
	b. Multi-step	I, P			
	c. Compound inequalities	I, P			
	d. Absolute value equations & inequalities	I, P			
	2. Graphing inequalities	I, P		8D4	
	a. In one variable (on a number line)	P			
	b. In two variables (on a coordinate plane)	I, P			
VI. Linear systems	*this can be taught at the end of 1st or 2nd semester instructors must coordinate each year			7	
	1. solve linear systems	I, P		8D4	
	a. Graphing	I, P			
	b. Substitution	I, P			
	c. Elimination	I, P			
	2. special linear systems - no solution & infinitely many solutions	I, P		8D4	
	3. applied linear systems - word problems	I, P		8D4	
	4. systems of linear inequalities (application - linear programming)	I, P		8D4	
VII. Exponents				8	
	1. laws of exponents			8A4b	
	2. simplifying algebraic expressions with exponents			8A4b	
	3. applied laws of exponents - scientific notation			8A4b	
VIII. Polynomials	*this can be switched with Quadratics - instructors coordinate			10	6A & 6B - broadly
	1. vocabulary for polynomials	I, P			
	2. add, subtract, multiply polynomials	I, P			
	3. factoring polynomials	I, P			
	a. GCF				
	b. Trinomial (a = 1 & a = other #'s)				
	c. Special cases				
	d. Grouping				

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IX. Quadratics			9	
	1. simplified radical form	I, P		8B4b
	2. multiply with radicals	I, P		8B4b
	3. graph quadratic functions - T-chart;	I, P		8B4b
	4. solve quadratic functions	I, P		8D4
	a. Zero product property (factoring)			
	b. Quadratic formula			
	5. relate # of real solutions to # of x-intercepts; relate to graph	I, P		8D4
	6. applications of quadratics - projectile motion	I, P		8D4
X. Rational Equations and Functions			11	
	*may break into 3 subunits per teacher discretion			
	1. Ratio and proportion	P		6D4
	2. percent equations (end of 1st subunit)	P		6D4
	3. direct variation	I, P		6D4
	4. inverse variation (end of 2nd subunit)	I, P		8D5
	5. operations with rational expressions	I, P		8B4a
	a. Multiply & divide			
	b. Add & subtract	I, P		
	6. Solving simple rational equations (end of 3rd subunit)			8B4a
XI. Radicals (rational and irrational numbers)				
	1. properties of rational and irrational numbers	P, M		8B4b
	2. operations with radicals	I, P		8B4b
	a. Add, subtract			8B4b
	b. Multiply, divide			
	3. multiplying binomials with radicals in them	I, P		8B4b
	4. simple radical equations	I, P		8B4b
	5. simple fractional exponents	I, P		8B4b
	6. applications of radicals: distance, midpoint, pythagorean thm.	I, P		8B4b
Current text:				
Algebra I				
McDougal Littell				
pub. 2001				