

ALGEBRA 1 SYLLABUS – 1st Semester

Please refer to this syllabus with any questions you may have. We will work through the text book pages in class. We will do all problems in a module, unless I tell you to do less because of the time remaining. Your text book is always available to you online. Just sign on to the **DentonISD SSO** and click on **MyHRW (Holt-McDougal Online)**. This will have interactive practice, videos, tutorials, and assessments for you. Please use it! In class I will be going over the Units and Modules on the backside of this paper. Please use the bottom half of this paper for notes and Big Ideas.

If you are absent, please look at the week and see what module you missed. You can watch lessons and videos on the books website. Let me know if you need more help with the content.

In this class you will be given two types of grades: major summative (60%) and minor summative (40%). There will be at least 1 minor per module and at least 1 major per unit. If you are not successful, you may relearn the material and reassess as time permits. Please ask for a *Request to Reassess* document to be eligible for reassessment.

Vocabulary – Please visit the vocabulary sets at http://quizlet.com/Mr_Havens. You record these vocab words in your vocab booklet or on a Google doc. If you choose to do the Google doc, please share it with me (rhavens@g.dentonisd.org).

Algebra 1 Sequence Pacing Guide 2016-2017

	section	Name of Section	GRADE
	UNIT 1	ALGEBRAIC MODELS	
WEEK 1	MODULE 1	Quantitative Reasoning	
	1.1	Solving Equations	
	1.2	Modeling Quantities	
	1.3	Reporting with Precision and Accuracy	
WEEKS 1-2	MODULE 2	ALGEBRAIC MODELS	
	2.1	Modeling with Expressions	
	2.2	Creating and Solving Equations	
	2.3	Solving for a Variable	
	2.4	Creating and Solving Inequalities	
	UNIT 2	UNDERSTANDING FUNCTIONS	
WEEKS 3, 4, 5	MODULE 3	FUNCTIONS AND MODELS	
	3.1	Graphing Relationships	
	3.2	Understanding Relations and Functions	
	3.3	Modeling with Functions	
	3.4	Graphing Functions	
	MODULE 4	PATTERNS AND SEQUENCES	
	4.1	Identifying and Graphing Sequences	
	4.2	Constructing Arithmetic Sequences	
4.3	Modeling with Arithmetic Sequences		
	UNIT 3A	LINEAR FUNCTIONS AND EQUATIONS	
WEEKS 6, 7, 8, 9	MODULE 5	LINEAR FUNCTIONS	
	5.1	Understanding Linear Functions	
	5.2	Using Intercepts	
	5.3	Interpreting Rate of Change and Slope	
	5.4	Direct Variation	
	MODULE 6	Forms of Linear Equations	
	6.1	Slope-Intercept Form	
	6.2	Point-Slope Form	
	6.3	Standard Form	
	6.4	Transforming Linear Functions	
	6.5	Comparing Properties of Linear Functions	
	UNIT 3B	LINEAR EQUATIONS, INEQUALITIES, MODELING	
WEEKS 10,11,12	MODULE 7	Linear Equations and Inequalities	
	7.1	Parallel and Perpendicular Lines	
	7.2	Using Functions to Solve One-Variable Equations	
	7.3	Linear Inequalities in Two Variables	
	MODULE 8	Linear Modeling and Regression	
	8.1	Scatter Plots and Trend Lines	
8.2	Fitting a Linear Model to Data		
	UNIT 4	LINEAR SYSTEMS	
WEEKS 13, 14, 15	MODULE 9	Solving Systems of Linear Equations	
	9.1	Solving Linear Systems by Graphing	
	9.2	Solving Linear Systems by Substitution	
	9.3	Solving Linear Systems by Adding or Subtracting	
	9.4	Solving Linear Systems by Multiplying First	
	MODULE 10	Modeling with Linear Systems	
	10.1	Creating Systems of Linear Equations	
	10.2	Graphing Systems of Linear Inequalities	
10.3	Modeling with Linear Systems		

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	UNIT 5	EXPONENTIAL RELATIONSHIPS	GRADE
WEEKS 17,18,19,20,21,22	MODULE 11	Rational Exponents and Radicals	
	11.1	Understanding Rational Exponents and Radicals	
	11.2	Simplifying Expressions with Rational Exponents and Radicals	
	MODULE 12	Geometric Sequences and Exponential Functions	
	12.1	Understanding Geometric Sequences	
	12.2	Constructing Geometric Sequences	
	12.3	Constructing Exponential Functions	
	12.4	Graphing Exponential Functions	
	MODULE 13	Exponential Equations and Models	
	13.1	Using Graphs and Properties to Solve Equations with Exponents	
	13.2	Modeling Exponential Growth and Decay	
	13.3	Using Exponential Regression Models	
	13.4	Comparing Linear and Exponential Models	
	UNIT 6	POLYNOMIAL OPERATIONS	
WEEKS 23,24,25	MODULE 14	Adding and Subtracting POLYNOMIALS	
	14.1	Understanding Polynomial Expressions	
	14.2	Adding Polynomial Expressions	
	14.3	Subtracting Polynomial Expressions	
	MODULE 15	MULTIPLYING AND DIVIDING POLYNOMIALS	
	15.1	Multiplying Polynomial Expressions by Monomials	
	15.2	Multiplying Polynomial Expressions	
15.3	Special Products of Binomials		
15.4	Dividing Polynomial Expressions		
	UNIT 7	QUADRATIC FUNCTIONS	
WEEKS 26,27,28	MODULE 16	Graphing Quadratic Functions	
	16.1	Understanding Quadratic Functions	
	16.2	Transforming Quadratic Functions	
	16.3	Interpreting Vertex Form and Standard Form	
	MODULE 17	CONNECTING INTERCEPTS, ZEROS, AND FACTORS	
	17.1	Connecting Intercepts and Zeros	
	17.2	Connecting Intercepts and Linear Factors	
17.3	Applying the Zero Product Property to Solve Equations		
	UNIT 8	QUADRATIC EQUATIONS AND MODELING	
WEEKS 29,30,31,32	MODULE 18	Using Factors to Solve QUADRATIC EQUATIONS	
	18.1	Solving Equations by Factoring $x^2 + bx + c$	
	18.2	Solving Equations by Factoring $a x^2 + bx + c$	
	18.3	Using Special Factors to Solve Equations	
	MODULE 19	USING SQUARE ROOTS TO SOLVE QUADRATIC EQUATIONS	
	19.1	Solving Equations by Taking Square Roots	
	19.2	Solving Equations by Completing the Square	
	19.3	Using the Quadratic Formula to Solve Equations	
19.4	Choosing a Method for Solving Quadratic Equations		
	MODULE 20	LINEAR, EXPONENTIAL, AND QUADRATIC MODELS	
	20.1	Modeling with Quadratic Functions	
	20.2	Comparing Linear, Exponential, and Quadratic Models	