

Course: Algebra 1

Grade: 9th

<u>Months/Days</u>	<u>UNITS</u>	<u>STANDARDS</u>	<u>CONTENT</u> Topics being covered? What do students need to know? (<i>nouns</i>)	<u>ACTIVITIES</u> w/Integration of Technology & Career Ready Practices	<u>ASSESSMENTS</u> What evidence (formative/summative) is utilized to establish that the content, standards, & skills have been mastered?
September	Unit 1: Foundations for Algebra	MA.9-12.A-CED.A.1 MA.9-12.A-REI.D.10 MA.9-12.A-SSE.A.1a MA.9-12.N-RN.B.3 MA.K-12.1 MA.K-12.6	Review of pre-algebra skills	Summer project Mathxlforschool.com	Unit assessment of pre-algebra skills
September/October	Unit 2: Solving Equations	MA.9-12.A-CED.A.1 MA.9-12.A-CED.A.4 MA.9-12.A-REI.A.1 MA.9-12.A-REI.B.3 MA.9-12.N-Q.A.1 MA.K-12.1 MA.K-12.6	-solving two step equations in one variable -solving multi step equations in one variable -solving equations with variables on both sides in one variable -solving algebraic proportions -solving literal equations	Variables, Grouping Symbols and Equations Translating Words into Symbols and Equations Translating Problems into Equations Using Addition, Subtraction, Multiplication and Division of Real Numbers Transforming Equations: Addition/Subtraction/Multiplication and Division Using Several Transformations Using Equations to Solve Problems Using Equations with the Variable on both Sides Problem Solving: Using Charts Cost, Income and Value Problems Order of Real Numbers	-quiz on solving different types of equations -quiz on algebraic proportions -quiz on literal equations -unit assessment on equations, algebraic proportions and literal equations and word problems.

<u>Months/Days</u>	<u>UNITS</u>	<u>STANDARDS</u>	<u>CONTENT</u> Topics being covered? What do students need to know? (<i>nouns</i>)	<u>ACTIVITIES</u> w/Integration of Technology & Career Ready Practices	<u>ASSESSMENTS</u> What evidence (formative/summative) is utilized to establish that the content, standards, & skills have been mastered?
October	Unit 3: Solving Inequalities	MA.9-12.A-REI.B.3 MA.9-12.A-CED.A.1 MA.9-12.N-Q.A.2 MA.9-12.A-SSE.A.1 MA.9-12.A-SSE.A.1a MA.9-12.A-SSE.A.1b	-Solve linear inequalities in one variable. Justify each step in the process and solution. -graphing linear inequalities in one variable. -solving absolute equations and inequalities	Solving Inequalities Solving Problems Involving Inequalities Solving Combined Inequalities Absolute Value in Open Sentences	--quiz on solving different types of inequalities -quiz on absolute value equations -quiz on absolute value inequalities -unit test 3 solving inequalities
November/December	Unit 4: An Introduction to Functions	MA.9-12.A-CED.A.2 MA.9-12.A-REI.D.10 MA.9-12.A-REI.D.11 MA.9-12.A-SSE.A.1 MA.9-12.A-SSE.A.1a MA.9-12.A-SSE.A.1b MA.9-12.F-BF.A.1 MA.9-12.F-BF.A.1a MA.9-12.F-BF.A.2 MA.9-12.F-IF.A.1 MA.9-12.F-IF.A.2 MA.9-12.F-IF.A.4 MA.9-12.F-IF.A.5 MA.9-12.F-LE.A.2 MA.9-12.N-Q.A.1 MA.9-12.N-Q.A.2	-using graphs to relate two quantities -patterns and linear functions -patterns and nonlinear functions -graphing a function rule -writing a function rule -formalizing relations and functions -arithmetic sequences	-mathxforschool -graphing calculator -desmos.com	-quiz on graphing functions -unit test 4 Intro to Functions
December/January	Unit 5: Linear Functions	MA.9-12.A-CED.A.2 MA.9-12.A-SSE.A.1 MA.9-12.A-SSE.A.1a MA.9-12.A-SSE.A.2 MA.9-12.F-BF.A.1 MA.9-12.F-BF.A.1a MA.9-12.F-BF.B.3 MA.9-12.F-BF.B.4	-rate of change & slope -direct variation -slope intercept form -point slope form -standard form -parallel & perpendicular lines	-mathxforschool -graphing calculator -desmos.com	-quiz on slope & roc -quiz on slope intercept form -quiz on parallel & perpendicular lines -unit 5 exam: Linear Functions

		MA.9-12.F-BF.B.4a MA.9-12.F-BF.B.6 MA.9-12.F-IF.C.7 MA.9-12.F-IF.C.7a MA.9-12.F-IF.C.7b MA.9-12.F-IF.C.9 MA.9-12.F-LE.A.1 MA.9-12.F-LE.A.1b MA.9-12.F-LE.A.2 MA.9-12.F-TF.B.5	-graphing absolute value		
<u>Months/Days</u>	<u>UNITS</u>	<u>STANDARDS</u>	<u>CONTENT</u> Topics being covered? What do students need to know? (<i>nouns</i>)	<u>ACTIVITIES</u> w/Integration of Technology & Career Ready Practices	<u>ASSESSMENTS</u> What evidence (formative/summative) is utilized to establish that the content, standards, & skills have been mastered?
February/March	Unit 6: Systems of Equations and Inequalities	MA.9-12.A-CED.A.3 MA.9-12.A-REI.C.5 MA.9-12.A-REI.C.6 MA.9-12.A-REI.D.11 MA.9-12.A-REI.D.12 MA.9-12.N-Q.A.2 MA.9-12.N-Q.A.3	-solving systems by graphing -solving systems by substitution -solving systems by elimination -applications of systems -linear inequalities -systems of linear inequalities	-mathxforschool -graphing calculator -desmos.com -exploration of systems (how do I know that I found the solution)	-quiz on graphing systems -quiz on solving systems by substitution -quiz on solving systems by elimination -quiz on linear inequalities -quiz on systems of linear inequalities -unit 6 exam: Systems of Equations and Inequalities
March/April	Unit 7: Exponents and Exponential Functions	MA.9-12.A-CED.A.2 MA.9-12.A-REI.D.11 MA.9-12.A-SSE.A.1 MA.9-12.A-SSE.A.1a MA.9-12.A-SSE.A.1b MA.9-12.A-SSE.B.3c MA.9-12.F-BF.A.1 MA.9-12.F-BF.A.1a MA.9-12.F-BF.A.2	-zero and negative exponents -multiplying powers with the same base -more mult. Prop of exponents -division prop of exp. -rational exp. & radicals -exponential functions -exponential growth & decay	-mathxforschool -graphing calculator -desmos.com -exploration of exponential functions	-quiz on zero and negative exponents -quiz on multiply powers with the same base -quiz division prop of exponents -quiz on exponential functions -unit 7 exam of Exponents and Exponential Functions

<u>Months/Days</u>	<u>UNITS</u>	<u>STANDARDS</u>	<u>CONTENT</u> Topics being covered? What do students need to know? (<i>nouns</i>)	<u>ACTIVITIES</u> w/Integration of Technology & Career Ready Practices	<u>ASSESSMENTS</u> What evidence (formative/summative) is utilized to establish that the content, standards, & skills have been mastered?
May/June	Unit 8: Polynomials and Factoring	CRP.K-12.CRP11.1 CRP.K-12.CRP12 CRP.K-12.CRP12.1 CRP.K-12.CRP4.1 CRP.K-12.CRP6 CRP.K-12.CRP6.1 CRP.K-12.CRP8	-adding & subtracting polynomials -multiplying & factoring out GCF -multiplying binomials -multiplying special cases -factoring $x^2 + bx + c$ -factoring $ax^2 + bx + c$ -factoring special cases -factoring by grouping	-mathxforschool -graphing calculator -desmos.com	-quiz on adding & subtracting polynomials -quiz on multiplying binomials -quiz on factoring $x^2 + bx + c$ -quiz on factoring $ax^2 + bx + c$ -quiz on factoring by grouping -unit 8 exam: Polynomials and Factoring
June	Unit 9: Quadratic Functions and Equations	MA.9-12.F-IF.C.7 MA.9-12.F-IF.C.7a MA.9-12.F-IF.B.4 MA.9-12.F-IF.B.5 MA.9-12.A-CED.A.2	-graphing quadratic -comparing quadratics to the parent function	-mathxforschool -graphing calculator -desmos.com -exploring quadratics.	-quiz on graphing quadratics

--	--	--	--	--	--