Algebra 1 Curriculum Map
Created March 2020, Revised April 2021, Depth of Knowledge June 2023

Month	Unit/Topic of Study from CPM	Standards	Key Vocabulary	Test Taking & Reading, & Engagement Strategies	Math Skills With Depth of Knowledge	Writing in the content area	Assessments
Sept	Chapter 1: Functions	A-REI.10 F-IF.1 F-IF.2 F-IF.4 F-IF.5 F-IF.7a F-IF.7b F-IF.7e MP4 MP5 MP6 MP7 MP8	absolute value domain equation function graph input value line of symmetry maximum minimum output value parabola quadratic function range x-intercept x→y table y-intercept	Huddle Think Pair Share Carousel Reciprocal Teaching Teammates Consult Whiparound Walk and Talk Proximity Partners Red Light/Green Light Participation Quiz Pairs Check Rally Robin Timed-Pair Share Round Robin Rally Coach Pairs Check	In this chapter, you will explore nonlinear functions and learn how to describe a function completely. You will see the shapes and behaviors of several different nonlinear functions. This chapter also introduces you to sharing your mathematical knowledge with a study team as you work together to solve problems. Recall, define, classify, compare, investigate, assess. W **Alg1Ch1 Scale.docx**	Content Writing Map https://docs.google.com/document/d/1e8TtIvyzuF5GhHaazWVAqFS4DzCNc7eMcXk_ID_JH1s/edit	Checkpoint 1 Quiz: Solving Linear Equations with Integer Coefficients Chapter 1 Team Test Chapter 1 Individual Test
Oct	Chapter 2: Linear Relationships	N-Q.1 N-Q.2 A-SSE.1a A-SSE.1b A-CED.2 A-REI.10 F-IF.4 F-IF.6 F-IF.7a F-IF.7b F-IF.9 F-BF.1a F-LE.1a F-LE.1b F-LE.2 F-LE.5 MP1 MP2 MP3 MP4	Δx Δy coefficient Figure 0 function graph growth linear equation parameter piecewise function rate of change situation slope slope triangle starting value steepness table	Swap Meet Think Pair Share Red Light/Green Light Pairs Check Huddle I Spy Teammates Consult Dyad Participation Quiz Traveling Salesman Reciprocal Teaching Proximity Partners Rally Robin Rally Coach Pairs Check	Chapter 2 will focus on the starting value and growth of linear functions. You will look for connections between the multiple representations of linear functions: table, graph, equation, and situation. In this chapter, you will come to a deeper understanding of slope than you may have had in previous courses, and you will explore the idea of slope as a rate of change. Calculate, estimate, compare, assess.	Claim Identification	Checkpoint Quiz 2: Evaluating Expressions and the Order of Operations Chapter 2 Team Test Chapter 2 Individual Test

		MP5 MP6 MP7 MP8	unit rate variable x-intercept y = mx + b y-intercept zero slope		Ⓦ Alg1Ch2 Scale.docx		
Oct - Nov	Chapter 3: Simplifying and Solving	A-SSE.1a A-SSE.3a A-SSE.3c A-APR.1 A-CED.4 A-REI.1 A-REI.3 MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8	algebra tiles area base binomial closed sets dimensions Distributive Property equation evaluate exponent expression generic rectangles integers "legal" moves length · width polynomial product solution solve standard form sum terms	Hot Potato Pairs Check Think Ink Pair Share Reciprocal Teaching Think Pair Share Red Light/Green Light Participation Quiz Swap Meet Hot Seat Rally Robin Round Robin Rally Coach Pairs Check	In Chapter 3 you will focus on multiplying expressions. You will also solve equations that contain products. While these new ideas will be introduced using algebra tiles, you will also develop a method to multiply expressions without using tiles. Measure, estimate, formulate, assess. Ⓦ Alg1Ch3 Scale.docx	Claim Identification	Checkpoint 3 Quiz: Operations with Rational Numbers Chapter 3 Team Test Chapter 3 Individual Test
Nov - Dec	Chapter 4: Systems of Equations	N-Q.1 N-Q.2 A-SSE.1b A-CED.1 A-CED.2 A-REI.5 A-REI.6 A-REI.10 F-LE.1b MP1 MP2 MP3 MP4 MP5 MP6 MP7	coincide Elimination Method Equal Values Method equation graph infinite solutions let statement mathematical sentence model no solution parallel	Red Light/Green Light Dyad Teammates Consult Participation Quiz Hot Potato Walk and Talk Pairs Check Think Ink Pair Share Traveling Salesman Think Pair Share Silent Debate Carousel Stand Up-Hand Up Rally Coach	In this chapter, you will learn how to solve word problems by writing a pair of equations, called a system of equations. Then you will solve the system of equations with the same multiple representations you used for solving linear equations: table, graph, and by manipulating the equations. Recall, define, calculate,	Command of Evidence	Checkpoint 4 Quiz: Solving Linear Equations with Fractional Coefficients Chapter 4 Team Test Chapter 4 Individual Test

				point of intersection situation solution standard form Substitution Method system of equations table $y = mx + b$	Numbered Heads Showdown	compare, summarize, assess. W Alg1Ch4 Scale.docx		
Jan	Review & Exam				Rally Coach Showdown	Recall & assess.		Semester 1 Exam
Jan	Chapter 5: Sequences	N-Q.2 F-IF.3 F-IF.6 F-IF.7e F-BF.2 F-LE.1a F-LE.1c F-LE.2 F-LE.3 MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8	arithmetic sequence common difference common ratio domain exponential function first term geometric sequence initial value linear equation multiplier recursive sequence sequence sequence generator t(0) term term number y-intercept	Dyad Teammates Consult Swap Meet Traveling Salesman Think Ink Pair Share Fishbowl Walk and Talk Proximity Partner Whiparound Participation Quiz Hot Potato Huddle Red Light/Green Light Reciprocal Teaching Listening Post Rally Robin Numbered Heads Showdown Rally Coach Pairs Check	Chapter 5 provides you an opportunity to review and strengthen your algebra skills while you learn about arithmetic and geometric sequences. Early in the chapter, you will find yourself using familiar strategies such as looking for patterns and making tables to write algebraic equations describing sequences of numbers. Later in the chapter, you will develop shortcuts for writing equations for certain kinds of sequences. Recall, compare, formulate, assess. W Alg1Ch5 Scale.docx	Inference	Checkpoint Quiz 5A: Laws of Exponents and Scientific Notation Checkpoint Quiz 5B: Writing the Equation of a Line Chapter 5 Team Test Chapter 5 Individual Test
Jan - Feb	Chapter 6: Modeling Two-Variable Data	N-Q.1 N-Q.3 S-ID.6a S-ID.6b S-ID.6c S-ID.7 S-ID.8	association cause correlation coefficient direction extrapolation	Teammates Consult Fishbowl Reciprocal Teaching Swap Meet Traveling Salesman Huddle	In Chapter 6 you will be describing a dependent relationship, called the association, between two numerical variables. You will use scatter plots of data to	Inference	Checkpoint Quiz 6A: Rewriting Equations with More than One Variable

		S-ID.9 MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8	form line of best fit lower bound LSRL lurking variable model outliers predictions r R-squared random scatter residual residual plot slope strength upper bound	Think Pair Share Walk and Talk I Spy Think Ink Pair Share Red Light/Green Light Whiparound Rally Robin Showdown Rally Coach Pairs Check	create lines and curves that model the data and then use those models to make predictions. You will mathematically describe the form, direction, strength, and outliers of an association. Measure, estimate, graph, assess. ⬜ Alg1Ch6 Scale.docx		Checkpoint Quiz 6B: Multiplying Polynomials and Solving Equations with Parentheses Chapter 6 Team Test Chapter 6 Individual Test Semester 1 Exam
Feb - March	Chapter 7: Exponential Functions	N-RN.1 N-RN.2 N-Q.1 N-Q.2 A-SSE.1b A-SSE.3c A-CED.1 A-CED.2 A-REI.10 F-IF.4 F-IF.5 F-IF.7b F-IF.7e F-IF.8b F-IF.9 F-BF.1a F-LE.1a F-LE.1c F-LE.2 F-LE.5 MP1 MP2MP4 MP5 MP7 MP8	appreciation asymptote compound interest depreciation exponential function fractional exponents half-life initial value multiplier parameter roots step function	Huddle I Spy Teammates Consult Traveling Salesman Carousel Gallery Walk Reciprocal Teaching Dyad Red Light/Green Light Think Ink Pair Share Huddle Walk and Talk Fishbowl Swap Meet Pairs Check Participation Quiz Think Pair Share Proximity Partners Hot Potato Silent Debate Rally Robin Numbered Heads Timed-Pair Share Rally Coach Pairs Check	Chapter 7 provides an opportunity for you to learn more about the family of exponential functions. You will also build more advanced algebra skills, such as solving for an indicated variable,simplifying or rewriting exponential expressions, working with fractional exponents, and finding the exponential function that passes exactly through any pair of given points. Recall, list, graph, summarize, assess. ⬜ Alg1Ch7 Scale.docx	Compare/ Contrast	Checkpoint Quiz 7A: Solving Problems by Writing Equations Checkpoint Quiz 7B: Solving Linear Systems of Equations Chapter 7 Team Test Chapter 7 Individual Test
Apr	Chapter 8:	N-Q.1	binomial	Reciprocal Teaching	In Chapter 8, a quadratics	Compare/	Checkpoint Quiz

	Quadratic Functions	A-SSE.1b A-SSE.2 A-SSE.3a A-SSE.3b A-CED.2 A-REI.4a A-REI.4b F-IF.4 F-IF.5 F-IF.7a F-IF.8a F-IF.9 F-BF.1a MP4 MP5 MP6 MP7 MP8	completing the square difference of squares factor factored completely factored form generic rectangle graph graphing form monomial parabola perfect square trinomials product quadratic equation root situation solution standard form sum symmetry table vertex x-intercept y-intercept Zero Product Property zeros	Hot Potato Think Pair Share Silent Debate Walk and Talk Participation Quiz Jigsaw Hot Seat Swap Meet Traveling Salesman Dyad Teammates Consult Whiparound Red Light/Green Light Pairs Check Think Ink Pair Share Numbered Heads Showdown Rally Coach	web will challenge you to find connections between the different representations of a quadratic function. Through this endeavor, you will learn how to rewrite quadratic equations in several forms, and how to use your graphing calculator to assist you. List, identify, compare, investigate, summarize, assess. 🅦 Alg1Ch8 Scale.docx	Contrast	8: Interpreting Associations Chapter 8 Team Test Chapter 8 Individual Test
May	Chapter 9: Solving Quadratics and Inequalities	N-Q.2 A-SSE.3b A-CED.1 A-CED.2 A-CED.3 A-REI.3 A-REI.4a A-REI.4b A-REI.10 A-REI.12 F-IF.8a MP1 MP2 MP4 MP5	boundary line or curve boundary point completing the square coordinates factoring graph inequality number line quadratic equation Quadratic Formula region solution	Hot Potato Huddle Swap Meet Reciprocal Teaching Pairs Check Walk and Talk Carousel Whiparound Participation Quiz Red Light/Green Light Think Pair Share Think Ink Pair Share Listening Post Teammates Consult	You will start this chapter by extending your ability to solve quadratic equations, and deciding which method of solving is most efficient. In addition, you will extend your ability to work with mathematical sentences by learning how to write inequalities that describe situations. List, classify, graph, formulate, construct, assess.	Review	Checkpoint Quiz 9: Writing Exponential Equations from Situations Chapter 9 Team Test Chapter 9 Individual Test

		MP6 MP7	standard form system of inequalities Zero Product Property	Traveling Salesman Rally Robin Timed-Pair Share Rally Coach Pairs Check	📄 Alg1Ch9 Scale.docx		
May - June	Chapter 10: Solving Complex Equations	N-RN.3 A-SSE.1b A-SSE.3c A-REI.1 A-REI.3 A-REI.4a A-REI.4b A-REI.7 A-REI.11 S-ID.5 MP1 MP2 MP4 MP5 MP6 MP7 MP8	absolute value association base boundary point categorical data equivalent equations exponent factored form Fraction Busters imaginary numbers inequality integers intercept intersection irrational numbers looking inside number line number system perfect square form quadratic equation Quadratic Formula rational numbers real numbers relative frequency rewriting simplify solution standard form for quadratics two-way table undoing	Think Ink Pair Share Silent Debate Red Light/Green Light Reciprocal Teaching Participation Quiz Think Pair Share Pairs Check Walk and Talk Hot Potato Dyad Traveling Salesman Huddle Teammates Consult Swap Meet Rally Robin Numbered Heads Showdown Rally Coach Timed-Pair Share	In Chapter 10, you will extend your solving skills to include other types of equations, including equations with square roots, absolute values, variables in exponents, and messy fractions. Then you will learn how to determine the number of possible solutions for an equation without actually solving them. You will also consider "imaginary" solutions to quadratic equations. This chapter also focuses on intersections of functions. You will learn how to use the intersection of the graphs of two functions to find the solution to an equation. Then you will solve quadratic and absolute value Inequalities. Identify, graph, estimate, formulate, draw conclusions, assess. 📄 Alg1Ch10 Scale.docx	Testing	Checkpoint Quiz 10A: The Exponential Web Checkpoint Quiz 10B: Factoring Polynomials Chapter 10 Team Test Chapter 10 Individual Test
June	Review & Exam			Rally Coach Showdown	Recall & assess.		Semester 2 Exam