Algebra 1 AAC - Scope and Sequence 2025-2026

TEKS Distribution among Units

Process Standards

	A.1A	**A.1B**	**A.1C**	**A.1D**	**A.1E**	**A.1F**	**A.1G**
Unit 1	X	X	X	X	X	X	X
Unit 2	X	X	X	X	X	X	X
Unit 3	X	X	X	X	X	X	X
Unit 4	X	X	X	X	X	X	X
Unit 5	X	X	X	X	X	X	X
Unit 6	X	X	X	X	X	X	X
Unit 7	X	X	X	X	X	X	X

Content Standards

	A.2A	A.2B	**A.2C**	A.2D	A.2E	A.2F	A.2G	A.2H	**A.2I**	A.3A	**A.3B**	**A.3C**	**A.3D**	A.3E	A.3F	A.3G	A.3H	A.4A	A.4B	A.4C	**A.5A**	A.5B	**A.5C**	**A.6A**	A.6B	A.6C	**A.7A**	A.7B	**A.7C**	**A.8A**	A.8B	A.9A	A.9B	**A.9C**	**A.9D**	A.9E	A.10A	A.10B	A.10C	A.10D	**A.10E**	A.10F	A.11A	**A.11B**	A.12A	A.12B	A.12C	A.12D	A.12E
Unit 1																					X	X																												X
Unit 2	X	X	X	X	X	X	X			X	X	X						X	X	X																										X	X	X	X	
Unit 3								X	X				X		X	X	X						X																											
Unit 4																																					X	X	X	X	X	X		X					
Unit 5														X										X	X	X	X	X	X		X																		
Unit 6																												X		X															X					
Unit 7																															X	X	X	X	X											X	X	
Unit 8																					X	X								X																			

The standards below are color coded to the MAP categories listed below. In addition, the number in parentheses represents the frequency the standard has been tested on STAAR/EOC since 2017.

Number and Algebraic Methods
Describe & Graph Linear Equations & Inequalities
Write and Solve Linear Functions, Equations, and Inequalities
Quadratic and Exponential Functions and Equations

Algebra 1 AAC
Scope and Sequence 2025-2026

Mathematical Process Standards: The student uses mathematical process to acquire and demonstrate mathematical understanding. The student is expected to:

A.1A Apply mathematics to problems arising in everyday life, society, and the workplace
A.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution
A.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems
A.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate
A.1E Create and use representations to organize, record, and communicate mathematical ideas
A.1F Analyze mathematical relationships to connect and communicate mathematical ideas
A.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Grading Period 1

Unit 1: Solving Linear Equations and Inequalities

Estimated Date Range: Aug. 12 – Aug. 29 (14 total school days)
Instructional & Re-engagement Days in Unit: 13

Assessments

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS (CFAs)
N/A	N/A	Unit 1, A.5A (1 day) Testing Window Aug. 25 – Aug. 29

Concepts within the Unit	TEKS
Establishing a Positive Mathematics Community Suggested Days: 2	<u>Process Standards:</u> A.1A Apply mathematics to problems arising in everyday life, society, and the workplace A.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution A.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and sense as appropriate, to solve problems A.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate

	A.1E Create and use representations to organize, record, and communicate mathematical ideas A.1F Analyze mathematical relationships to connect and communicate mathematical ideas A.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication
Concept #1: Solving Equations and Inequalities Suggested Days: 10 **CFA A.5A** **(Aug. 25 – Aug. 29)**	**Priority Standards** **A.5A (14) solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included in both sides.** ***AAC – Justify each step of solving the linear equations with properties.*** Important Standards A.5B (1) solve linear inequalities in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides A.12E (1) solve mathematic and scientific formulas, and other literal equations, for a specified variable

Unit 2: Graphing and Writing Linear Functions (Continues in Grading Period 2)

Estimated Date Range: Sept. 2 – Oct.24 (32 total school days)

Instructional & Re-engagement Days in Unit: 28 days (24 days in GP1 and 4 days in GP2)

Assessments		
STATE/NATIONAL ASSESSMENTS N/A	**DISTRICT ASSESSMENTS** NWEA MAP BOY (9/9 – 9/11) 3 days	**COMMON FORMATIVE ASSESSMENTS (CFAs)** Unit 2, A.3C, A.2A, A.2C (1 day) Testing Window Oct. 6 – Oct. 24

Concepts within the Unit	**TEKS**
Concept #1: Intro to Functions **(Determining Functions and Arithmetic Sequences)** Suggested Days: 4	Important Standards: A.12A (4) decide whether relations represented verbally, tabularly, graphically, and symbolically define a function A.12C (2) identify terms of arithmetic ~~and geometric~~ sequences when the sequences are given in function form using recursive processes A.12D (3) write a formula for the nth term of arithmetic ~~and geometric~~ sequences, given the value of several of their terms A.12B (7) evaluate functions, expressed in function notation, given one or more elements in their domains

Concept #2: Rate of Change and Slope Suggested Days: 6	**Priority Standard** **A.3C (18) ~~graph linear functions on the coordinate plane and~~ identify key features, including ~~x-intercept, y-intercept, zeros, and~~ slope, in mathematical and real-world problems** **A.3B (17) calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems** ***AAC – Calculate the rate of change with variables with solving. Examples could be given the points (4,5) and (x,10) what is x if the slope is -5. Calculate the rate of change/slope using two methods and justify their thinking. Create a table, verbal description that would represent a certain rate of change. For example, create a table that represents a rate of change of -2/3. Also add real world context. Justify any two points in the graph will provide equivalent ratios of the vertical change to the horizontal change.*** Important Standards A.3A (6) determine the slope of a line given a table of values, a graph, two points on the line, and an equation written in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$
Concept #3: Graphing Linear Functions Suggested Days: 7	**Priority Standards** **A.3C (18) graph linear functions on the coordinate plane and identify key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems** ***AAC – Create graphs that represent key feature restrictions such as the slope is less than zero, the y-intercept value must be greater than the x-intercept value then identifies all key features. Justify graphing with another method for standard form (intercepts, solve for y, -a/b). Compare graphs of linear equations by analyzing key features when a change was applied to the original linear equation.*** A.2A (13) Determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities ***AAC – Create linear graph that represents certain domain and range restrictions. Compare graphs of linear equations by analyzing domain and range when a change was applied to the original linear equation. If given a real-world problem that is continuous, how could it changed to represent discrete data and vice versa then represent the new domain and range.*** Important Standards A.3E (6) determine the effects on the graph of the parent function $f(x) = x$ when $f(x)$ is replaced by $af(x)$, $f(x) + d$, $f(x-c)$, $f(bx)$ for specific values of a, b, c, and d.

Concept #4: Writing Linear Functions Suggested Days: 6 **CFA A.2A, A.2C, A.3C** **(Oct. 6 – Oct. 24)**	**Priority Standards** **A.2C (14) write linear equations in two variables given a table of values, a graph, and a verbal description** ***AAC write linear equations in all different forms (standard, point-slope, and slope-intercept) and discover the advantages of each form such as slope-intercept (identify slope and y-intercept), standard (identify intercepts), and point slope (identifies point and slope).*** Important Standards A.2B (4) write linear equations in two variables in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$, given one point and the slope and given two points A.2D (6) write and solve equations involving direct variation A.2E (4) write the equation of a line that contains a given point and is parallel to a given line. A.2F (2) write the equation of a line that contains a given point and is perpendicular to a given line A.2G (5) write an equation of a line that is parallel or perpendicular to the X or Y axis and determine whether the slope of the line is zero or undefined
Concept #5: Linear Regression Suggested Days: 2	**Important Standards** **A.4C (4)** write, with and without technology, linear functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems A.4A (3) calculate, using technology, the correlation coefficient between two quantitative variables and interpret this quantity as a measure of the strength of the linear association A.4B Compare and contrast association and causation in real-world problems

Grading Period 2

Unit 2: Graphing and Writing Linear Functions (Continued)

Estimated Date Range: Sept. 2 – Oct.24 (32 total school days)
Instructional & Re-engagement Days in Unit: 28 days (24 days in GP1 and 4 days in GP2)
See grading period 1 for details

Unit 3: Systems of Linear Equations and Inequalities

Estimated Date Range: Oct. 27 – Dec. 19 (35 total school days)
Instructional & Re-engagement Days in Unit: 30 days

Assessments

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS	Semester Exams
N/A	N/A	Unit 3, A.2I, A.5C, A.3D (1 day) Testing Window (12/2 – 12/12)	(4 days) Testing Window (12/16 – 12/19)

Concepts within the Unit	TEKS
Concept #1: Representing Systems of Equations Suggested Days: 5	**Priority Standards** A.2I (13) write systems of two linear equations given a table of values, a graph, and a verbal description ***AAC- Research a real-world situation of system of linear equations and represent the situation using a verbal description, equation and graph.*** Important Standards A.3F (5) graph systems of two linear equations in two variables on the coordinate plane and determine the solution if they exist A.3G (2) estimate graphically the solutions to systems of two linear equations with two variables
Concept #2: Solving Systems of Equations Suggested Days: 8	**Priority Standards** **A.5C (13) Solve systems of two linear equations with two variables for mathematical and real-world problems** ***AAC- Solve systems of equations algebraically and justify which method would be most efficient and why.***

**Solving System of Linear Equations Project*	
Concept #3: Linear Inequalities in 2 Variables Suggested Days: 8 **CFA A.2I, A.5C, & A.3D** **(Dec. 2 - Dec. 12)**	**Priority Standards** **A.3D (14) Graph the solution set of linear inequalities in two variables on the coordinate plane** ***AAC – Justify their solution set by testing at least 2 points algebraically and also determine which points are not a part of the solution set and justify why.*** Important Standards A.2H (5) write linear inequalities in two variables given a table of values, a graph, and a verbal description ***AAC – Given certain points in a solution set create a graph and write a linear inequality that would satisfy the conditions.***
Concept #4: Systems of Linear Inequalities. Suggested Days: 4	Important Standards A.3H (2) graph the solution set of systems of two linear inequalities in two variables on the coordinate plane

Grading Period 3

Unit 4: Operations of Polynomial Functions
Estimated Date Range: Jan. 8 – Feb. 6 (21 total school days)
Instructional & Re-engagement Days in Unit: 18 days

Assessments

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS
N/A	NWEA MAP MOY (1/27 – 1/29) 3 days	N/A

Concepts within the Unit	TEKS
Concepts #1: Simplifying Numeric and Algebraic Expressions using Laws of Exponents Suggested Days: 4	**Priority Standards** **A.11B (18) simplify numeric and algebraic expressions using the laws of exponents, including integral and rational exponents** ***AAC- Create an expression that would simplify to $\frac{c^3d^4}{z}$. Justify what law of exponent was used when simplifying the expression.***
Concept #2: Adding and Subtracting Polynomials Suggested Days: 2	Important Standards A.10A (4) add and subtract polynomials of degree one and degree two
Concept #3: Multiplying Polynomials Suggested Days: 3	Important Standards A.10B (4) multiply polynomials of degree one and degree two
Concept #4: Dividing Polynomials Suggested Days: 2	**Important Standards** A.10C determine the quotient of a polynomial of degree one and polynomial of degree two when divided by a polynomial of degree one and polynomial of degree two when the degree of the divisor does not exceed the degree of the dividend

Concept #5: Factoring Polynomials Suggested Days: 6	**Priority Standards** **A.10E (19) factor, if possible, trinomials with real factors in the form $ax^2 + bx + c$, including perfect square trinomials of degree two** ***AAC – Justify that they have the correct factors by applying multiplying polynomials. If the expression is not factorable with real solutions, how could we change one of the terms to make it factorable? Factor with a GCF of x for cubic function for an example $2x^3 + 7x^2 + 3x$.*** Important Standards A.10D rewrite polynomial expressions of degree one and degree two in equivalent forms using the distributive property A.10F (3) decide if a binomial can be written as the difference of two squares and, if possible, use the structure of a difference of two squares to rewrite the binomial

Unit 5: Graphs of Quadratic Functions
Estimated Date Range: Feb. 9 – Mar. 5 (17 total school days)
Instructional & Re-engagement Days in Unit: 16 days

Assessments

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS
K-12 TELPAS Window (2/17 – 3/27)	N/A	Unit 5, A.7A, A.6A, & A.7C (1 day) Testing Window Feb. 18 – Feb. 27

Concepts within the Unit	TEKS
Concept #1: Graphing Quadratic Functions Suggested Days: 8	**Priority Standards** **A.7A (14) graph quadratic functions on the coordinate plane and use the graph to identify key attributes [of quadratic functions], if possible, including x-intercept, y-intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry** ***AAC- Students will have to determine the key attributes and justify algebraically excluding x-intercepts and zeros. Interpret the real world meaning of key attributes when given context. Compare graphs by analyzing key attributes when the quadratic function is changed to another function.*** A.6A (14) Determine the domain and range of quadratic functions and represent the domain the range using inequalities

	AAC- Compare the domain and range of the parent function with the transformed function. Also interpret real world meaning of the domain and range. A.7C (13) determine the effects on the graph of the parent function $f(x) = x^2$ when f(x) is replaced by af(x), f(x) + d, f(x - c), f(bx) for specific values of a, b, c, and d. ***AAC- Compare the domain and range of the parent function with the transformed function. Given a graph of a transformed function which transformation would need to occur transform it to its parent function.***
Concept #2: Writing Quadratic Functions Suggested Days: 4	Important Standards A.6B (5) write equations of quadratic functions given the vertex and another point on the graph, write the equation in vertex form ($f(x) = a(x - h)^2 + k$), and rewrite the equation from vertex form to standard form ($f(x) = ax^2 + bx + c$) A.6C (7) write quadratic functions when given real solutions and graphs of their related equations A.6B (5) write equations of quadratic functions given the vertex and another point on the graph, write the equation in vertex form ($f(x) = a(x - h)^2 + k$), and rewrite the equation from vertex form to standard form ($f(x) = ax^2 + bx + c$ A.7B describe the relationship between the linear factors of quadratic expressions and the zeros of their associated quadratic functions
Concept #2: Quadratic Regression Suggested Days: 2	Important Standard A.8B write, using technology, quadratic functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems
Unit 6: Solving Quadratic Equations (Continues in Grading Period 4) Estimated Date Range: Mar. 9 – Apr. 7 (16 total school days) Instructional & Re-engagement Days in the Unit: 15 days (5 days in GP3 and 10 days in GP4) For details, see grading period 4	
Grading Period 4	
Unit 6: Solving Quadratic Equations (Continued) Estimated Date Range: Mar. 9 – Apr. 7 (16 total school days) Instructional & Re-engagement Days in the Unit: 15 days (5 days in GP3 and 10 days in GP4)	
Assessments	

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS
K-12 TELPAS Window (2/17 – 3/27)	N/A	Unit 6, A.8A (1 day) Testing Window Mar. 30 – Apr. 7

Concepts within the Unit	TEKS
Concept #1: Solving Quadratic Equations by Graphing and Factoring Suggested Days: 4	**Priority Standards** **A.8A (13) solve quadratic equations having real solutions by factoring, ~~taking square roots, completing the square, and applying the quadratic formula~~** ***AAC – Justify each step of solving the quadratic equations by factoring. Factor quadratic equations when a is a fraction and they need to multiply the factor away.*** ***Check solutions.*** Important Standards A.7B describe the relationship between the linear factors of quadratic expressions and the zeros of their associated quadratic functions
Concept #2: Simplifying Radical Expressions Suggested Days: 2	Important Standards A.11A (6) simplify numerical radical expressions involving square roots
Concept #3: Solve Quadratic Equations by Square Root Method Suggested Days: 2	**Priority Standards** **A.8A (13) solve quadratic equations having real solutions by ~~factoring,~~ taking square roots, ~~completing the square, and applying the quadratic formula~~** ***AAC – Justify each step of solving the quadratic equations by square roots.*** ***Check solutions.***
Concept #4: Solve Quadratic Equations by Quadratic Formula Suggested Days: 4	**Priority Standards** **A.8A (13) solve quadratic equations having real solutions by ~~factoring, taking square roots, completing the square, and~~ applying the quadratic formula** ***AAC - Discover with discriminants when a quadratic equation will be factorable and have real solutions. (When the discriminant is a perfect square). Demonstrate their procedural fluency between using the quadratic formula, solving by square root method, and factoring. Which method would they use and why?. Check solutions.***

Unit 7: Exponential Functions Estimated Date Range: Apr. 8 – May 1 (18 total school days) Instructional & Re-engagement Days in Unit: 15 days		
Assessments		
STATE/NATIONAL ASSESSMENTS STAAR English I EOC (4/7) 1 day STAAR Biology EOC (4/14) 1 day STAAR Algebra I EOC (4/21) 1 day	**DISTRICT ASSESSMENTS** N/A	**COMMON FORMATIVE ASSESSMENTS** N/A

Concepts within the Unit	TEKS
Concept #1: Graphing Exponential Functions Suggested Days: 4	**Priority Standards** **A.9D (14) graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems** ***AAC - Compare graphs by analyzing key features and interpreting the real world meaning of the key features.*** A.9A determine the domain and range of exponential functions of the form $f(x) = ab^x$ and represent the domain and range using inequalities ***AAC - Create graphs that have the domain and range restrictions and interpret the real world meaning of the domain and range.***
Concept #2: Geometric Sequences Suggested Days: 2	Important Standards A.12C (2) identify terms of arithmetic and geometric sequences when the sequences are given in function form using recursive processes A.12D (3) write a formula for the n^{th} term of arithmetic and geometric sequences, given the value of several of their terms
Concept #3: Writing Exponential Functions Suggested Days: 4	**Priority Standards** **A.9C(14) write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay;** **AAC - Create a real-world situation that represents a given exponential function represent it using an equation and verbal description.* Important Standards A.9B (6) interpret the meaning of the values of a and b in exponential functions of the form $f(x) = ab^x$ in real-world problems;

Concept #4: Exponential Regression Suggested Days: 2	Important Standards A.9E write, using technology, exponential functions that provide a reasonable fit to data and make predictions for real-world problems

Unit 8: Solving Equations Re-Enforcement

Estimated Date Range: May 4 – May 28 (18 total school days)

Instructional & Re-engagement Days in Unit: 11 days

Assessments

STATE/NATIONAL ASSESSMENT(S)	DISTRICT ASSESSMENT(S)	COMMON FORMATIVE ASSESSMENTS (CFAs)	Semester Exams
N/A	NWEA MAP EOY (5/12 – 5/14) 3 days	*(administered within designated concept)* N/A	(4 days) Testing Window (5/22 – 5/28)

Concepts within the Unit	TEKS
Concept #1: Solving Equations and Inequalities Suggested Days: 3	**Priority Standards** **A.5A (14) solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included in both sides.** ***AAC – Justify each step of solving the linear equations with properties.*** Important Standards A.5B (1) solve linear inequalities in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides
Concept #2: Solve Quadratic Equations by Completing the Square Suggested Days: 3	**Priority Standards** **A.8A (13) solve quadratic equations having real solutions by ~~factoring,~~ ~~taking square roots,~~ completing the square, ~~and applying the quadratic formula~~** ***AAC – Justify each step of solving the quadratic equations by completing the square.*** ***Check solutions.***
Concept #3: Solving Quadratic Equations (All Methods) Suggested Days: 3	**Priority Standards** **A.8A (13) solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula** ***AAC – Justify each step of solving the quadratic equations by factoring.*** ***Check solutions.***

	AAC – Justify each step of solving the quadratic equations by square roots. ***. Check solutions.***