

Foundations of Algebra

TERM 1

Term 1 Week	MS CCRS Algebra I Standards / Instructional Focus	Core Academic Vocabulary / Resources
Week 1 August 5-7, 2026	Preparation for N-RN.3; N-Q.1-3; prerequisite 7.NS/8.NS Number fluency for algebra: integer and rational-number operations, order of operations, fractions/decimals/percents, absolute value, estimation, and units.	rational number, integer, absolute value, reciprocal, coefficient, unit rate, precision Resources/Practice: Diagnostic + targeted number-sense stations; rational-number error analysis; units/precision problems; calculator fluency.
Week 2 August 10-14, 2026	A-SSE.1-2; prerequisite 7.EE/8.EE Expressions and algebraic structure: translate verbal phrases, identify terms/factors/coefficients, evaluate expressions, use properties, distribute, and combine like terms.	expression, term, factor, coefficient, constant, variable, equivalent, distributive property, like terms Resources/Practice: Algebra tiles/area models; expression sort; equivalent-expression reasoning; multiple-select error analysis.
Week 3 August 17-21, 2026	A-REI.1,3; A-CED.1,4 Solving linear equations: one-, two-, and multi-step equations; variables on both sides; literal equations/formulas; justify solution steps.	equation, solution, inverse operation, equality, equivalent equation, literal equation, formula Resources/Practice: Balance-model reasoning; equation-solving stations; justify each step; formula rearrangement in context.
Week 4 August 24-28, 2026	A-REI.3; A-CED.1,3 Linear inequalities: solve and graph one-variable inequalities, reverse inequality when multiplying/dividing by negatives, interpret constraints and solution sets.	inequality, solution set, boundary, compound inequality, constraint, viable solution Resources/Practice: Number-line graphing; contextual constraints; true/false solution testing; numeric-entry and multi-select practice.
Week 5 August 31-September 4, 2026	F-IF.6; F-LE.1-2; A-CED.2 Rate of change and proportional relationships: coordinate plane review, unit rate, slope as rate of change, proportional vs. nonproportional relationships.	coordinate plane, ordered pair, slope, rate of change, proportional, constant of proportionality, intercept Resources/Practice: Slope from tables/graphs/points; real-world rate tasks; proportional/nonproportional card sort; graph interpretation.
Week 6 September 8-11, 2026	A-CED.2; A-REI.10; F-IF.4,7 Graphing linear equations: connect slope-intercept, standard, and point-slope ideas conceptually; graph from equation/table/context; interpret intercepts.	linear equation, slope, y-intercept, x-intercept, independent variable, dependent variable, scale Resources/Practice: Graphing from multiple representations; matching equation-table-graph-context; graphing technology checks.

Week 7 September 14-18, 2026	F-IF.4-6,9; F-BF.1; F-LE.1-2,5 Linear functions in multiple representations: compare tables, graphs, equations, and contexts; write equations/functions and interpret slope/intercept in context.	function, input, output, domain, range, rate of change, parameter, linear model Resources/Practice: Four-representation tasks; write $y=mx+b$ from data/context; compare two plans/rates; contextual interpretation.
Week 8 September 21-25, 2026	F-IF.1-3; F-BF.1 Function foundations: function vs. relation, function notation, evaluate functions, domain/range, sequences as functions, mapping and input-output reasoning.	relation, function, function notation, domain, range, input, output, sequence, explicit rule Resources/Practice: Function machine/mapping tasks; vertical-line-test concept; evaluate $f(x)$; sequence tables; TE-style matching.
Week 9 September 28-October 2, 2026	N/A - cumulative preparation First nine-weeks synthesis, assessment, and reteach. Integrate number fluency, expressions, equations, inequalities, slope, linear graphs, and functions.	spiral review Weeks 1-8 Resources/Practice: Cumulative MAAP-style assessment; error analysis; targeted small-group reteach; equation-table-graph-context performance task.

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TERM 2

Term 2 Week	MS CCRS Algebra I Standards / Instructional Focus	Core Academic Vocabulary / Resources
Week 10 October 13-16, 2026	A-REI.5-6; A-CED.3 Systems of linear equations: understand intersection as a common solution; solve by graphing, substitution, and elimination; interpret no/one/ininitely many solutions.	system of equations, intersection, substitution, elimination, solution, consistent, dependent Resources/Practice: Graph-to-algebra connections; systems in context; compare solution methods; error analysis.
Week 11 October 20-23, 2026	F-LE.1-2,5; A-SSE.3c Exponential foundations: exponent rules review, repeated multiplication, geometric sequences, distinguish linear vs. exponential growth/decay, interpret initial value and growth factor.	exponent, base, power, growth factor, decay factor, exponential, geometric sequence, percent change Resources/Practice: Linear vs. exponential tables; growth/decay contexts; exponent-rule practice; write simple exponential models.
Week 12 October 26-30, 2026	A-APR.1; A-SSE.1-2 Polynomial foundations: classify polynomials; add, subtract, and multiply polynomials; connect distributive property and area models to multiplication.	monomial, binomial, polynomial, degree, leading coefficient, standard form, FOIL Resources/Practice: Algebra tiles/area models; polynomial operation stations; structure and error analysis.
Week 13 November 2-6, 2026	A-SSE.3a; A-APR.3 Factoring foundations: greatest common factor, trinomials with leading coefficient 1, difference of squares; connect factors to zeros conceptually.	factor, greatest common factor, trinomial, difference of squares, zero, root, x-intercept Resources/Practice: Factor using area models; factored-form matching; zero-product reasoning; graph/factor connections.
Week 14 November 9-13, 2026	A-REI.4; F-IF.7-8 Quadratic foundations: recognize quadratic patterns and graphs; vertex, axis of symmetry, intercepts; solve simple quadratics by factoring/square roots; introduce other methods conceptually.	quadratic, parabola, vertex, axis of symmetry, maximum, minimum, zero, root Resources/Practice: Quadratic table/graph exploration; factor-to-zero tasks; compare linear vs. quadratic change; technology graphing.
Week 15 November 16-20, 2026	F-IF.7-9; F-BF.3; A-REI.11 Comparing and transforming functions: compare linear/quadratic/exponential representations; identify key graph features; explore simple vertical/horizontal shifts and intersections.	transformation, translation, maximum, minimum, intercept, end behavior, intersection Resources/Practice: Function comparison stations; graph transformations with technology; intersection as solution; composite comparison items.

Week 16 November 30- December 4, 2026	S-ID.1-3,5-9 Statistics and data modeling: dot plots/histograms/box plots, center and spread, scatter plots, trend lines, slope/intercept in context, correlation vs. causation.	distribution, mean, median, IQR, outlier, scatter plot, association, correlation, causation, line of best fit Resources/Practice: Analyze real data; create/interpret plots; compare distributions; fit and interpret a linear model; correlation-causation scenarios.
Week 17 December 7-11, 2026	A-CED; F-IF; F-LE; S-ID integrated Mathematical modeling and applications: choose variables/units, build equations/functions, use tables/graphs, interpret parameters and solutions, and communicate reasoning.	model, constraint, parameter, representation, residual, reasonable, viable Resources/Practice: Multi-step modeling task; equation-table-graph-context synthesis; calculator/technology practice; written justification.
Week 18 December 14-18, 2026	All priority strands Semester integration and Algebra I readiness. Spiral prerequisite skills, assess readiness, analyze errors, and reteach high-leverage gaps before transition to Algebra I.	spiral review of semester vocabulary Resources/Practice: Cumulative Algebra I-readiness assessment; individual error analysis; targeted reteach; student readiness checklist.