# Scope and Sequence for Extra Support Materials for Algebra 1

## Unit 1: Extra Support Materials for Algebra 1, Unit 1 "One-Variable Statistics"

### Section A: Getting to Know You (Alg1+)

- Lesson 1: Human Box Plot
- Lesson 2: Human Dot Plot
- Lesson 3: Which One?

### Section B: Distribution Shapes (Alg1+)

- Lesson 4: The Shape of Data Distributions
- Lesson 5: Watch Your Calculations

### Section C: How to Use Spreadsheets (Alg1+)

### Section D: Manipulating Data (Alg1+)

- Lesson 9: Using Technology for Statistics
- Lesson 10: Measures of Center
- Lesson 11: Decisions, Decisions
- Lesson 12: Variability
- Lesson 13: Standard Deviation in Real-World Contexts
- Lesson 14: Outliers and Means
- Lesson 15: Where Are We Eating?

### Section E: Let's Put It to Work (Alg1+)

- Lesson 16: Compare and Contrast

## Unit 2: Extra Support Materials for Algebra 1, Unit 2 "Linear Equations and Systems"

### Section A: Writing and Modeling with Equations (Alg1+)

- Lesson 1: Expressing Mathematics
- Lesson 2: Words and Symbols
- Lesson 3: Setting the Table
- Lesson 4: Solutions in Context
- Lesson 5: Graphs, Tables, and Equations

### Section B: Manipulating Equations and Understanding Their Structure (Alg1+)

- Lesson 6: Equality Diagrams

- Lesson 7: Why Is That Okay?
- Lesson 8: Reasoning about Equations
- Lesson 9: Same Situation, Different Symbols
- Lesson 10: Equations and Relationships
- Lesson 11: Slopes and Intercepts

### Section C: Systems of Linear Equations in Two Variables (Alg1+)

- Lesson 12: Connecting Situations and Graphs
- Lesson 13: Making New, True Equations
- Lesson 14: Making More New, True Equations
- Lesson 15: Off the Line
- Lesson 16: Elimination
- Lesson 17: Number of Solutions in One-Variable Equations

### Section D: Let's Put It to Work (Alg1+)

- Lesson 18: Putting the Pieces Together
- Lesson 19: Graphic Design

## Unit 3: Extra Support Materials for Algebra 1, Unit 3 “Two-Variable Statistics”

### Section A: Two-Way Tables (Alg1+)

- Lesson 1: Human Frequency Table
- Lesson 2: Talking Percents
- Lesson 3: Associations and Relative Frequency Tables

### Section B: Scatter Plots (Alg1+)

- Lesson 4: Interpret This, Interpret That
- Lesson 5: Goodness of Fit
- Lesson 6: Actual Data vs. Predicted Data

### Section C: Correlation Coefficients (Alg1+)

- Lesson 7: Confident Models
- Lesson 8: Correlations
- Lesson 9: What’s the Correlation?

### Section D: Let's Put It to Work (Alg1+)

- Lesson 10: Putting It All Together

## Unit 4: Extra Support Materials for Algebra 1, Unit 4 "Linear Inequalities and Systems"

### Section A: Linear Inequalities in One Variable (Alg1+)

- Lesson 1: Inequalities in Context
- Lesson 2: Queuing on the Number Line
- Lesson 3: Interpreting Inequalities

### Section B: Linear Inequalities in Two Variables (Alg1+)

- Lesson 4: From One- to Two-Variable Inequalities
- Lesson 5: Situations with Constraints
- Lesson 6: Modeling Constraints

### Section C: Systems of Linear Inequalities in Two Variables (Alg1+)

- Lesson 7: Reasoning with Graphs of Inequalities
- Lesson 8: Representing Systems of Inequalities
- Lesson 9: Testing Points to Solve Inequalities

## Unit 5: Extra Support Materials for Algebra 1, Unit 5 "Functions"

### Section A: Functions and Their Representations (Alg1+)

- Lesson 1: Describing Graphs
- Lesson 2: Understanding Points in Situations
- Lesson 3: Using Function Notation
- Lesson 4: Interpreting Functions
- Lesson 5: Function Representations

### Section B: Analyzing and Creating Graphs of Functions (Alg1+)

- Lesson 6: Finding Interesting Points on a Graph
- Lesson 7: Slopes of Segments
- Lesson 8: Interpreting and Drawing Graphs for Situations
- Lesson 9: Increasing and Decreasing Functions

### Section C: A Closer Look at Inputs and Outputs (Alg1+)

- Lesson 10: Interpreting Inputs and Outputs
- Lesson 11: Examining Domains and Ranges
- Lesson 12: Functions with Multiple Parts

### Section D: Absolute Value (Alg1+)

- Lesson 13: Number Line Distances
- Lesson 14: Absolute Value Meaning

- Lesson 15: Absolute Value Equations
- Lesson 16: Inequalities

### Section E: Inverse Functions (Alg1+)

- Lesson 17: Finding Input Values and Function Values
- Lesson 18: Rewriting Equations for Perspectives
- Lesson 19: Interpreting Function Parts in Situations

### Section F: Let's Put It to Work (Alg1+)

- Lesson 20: Modeling Price Information

## Unit 6: Extra Support Materials for Algebra 1, Unit 6 "Introduction to Exponential Functions"

### Section A: Looking at Growth (Alg1+)

- Lesson 1: Reviewing Exponents
- Lesson 2: Growth Patterns

### Section B: A New Kind of Relationship (Alg1+)

- Lesson 3: Properties of Exponents
- Lesson 4: Connections between Representations
- Lesson 5: Working with Fractions
- Lesson 6: Find That Factor

### Section C: Negative and Fractional Exponents (Alg1+ CA)

- Lesson 7: Negative Exponents
- Lesson 9: Exponent Rules
- Lesson 10: Fractional Exponents

### Section D: Exponential Functions (Alg1+)

- Lesson 11: Representing Functions
- Lesson 12: Interpreting Functions
- Lesson 13: Rate of Change
- Lesson 14: Skills for Modeling with Mathematics
- Lesson 15: Connections between Graphs and Equations
- Lesson 16: Representations of Exponential Functions

### Section E: Percent Growth and Decay (Alg1+)

- Lesson 17: Percentage Increase and Decrease
- Lesson 18: Changing the Score
- Lesson 19: Over and Over

- Lesson 20: Annually, Quarterly, or Monthly?
- Lesson 21: Bases and Exponents

### Section F: Comparing Linear and Exponential Functions (Alg1+)

- Lesson 22: Adjusting Windows
- Lesson 23: Evaluating Functions over Equal Intervals

### Section G: Let's Put It to Work (Alg1+)

- Lesson 24: Skills for Mathematical Modeling

## Unit 7: Extra Support Materials for Algebra 1, Unit 7 "Introduction to Quadratic Functions"

### Section A: A Different Kind of Change (Alg1+)

- Lesson 1: Accessing Areas and Pondering Perimeters
- Lesson 2: Describing Patterns

### Section B: Quadratic Functions (Alg1+)

- Lesson 3: Lots of Rectangles
- Lesson 4: Evaluating Quadratic and Exponential Functions
- Lesson 5: Distance to and Distance From
- Lesson 6: Graphs of Situations That Change
- Lesson 7: Accurate Representations

### Section C: Working with Quadratic Expressions (Alg1+)

- Lesson 8: Areas and Equivalent Expressions
- Lesson 9: Working with Signed Numbers
- Lesson 10: Relating Linear Equations and Their Graphs

### Section D: Features of Graphs of Quadratic Functions (Alg1+)

- Lesson 11: Zeros of Functions and Intercepts of Graphs
- Lesson 12: Changing the Equation
- Lesson 14: Interpreting Representations
- Lesson 15: Preparing for Vertex Form
- Lesson 16: Graphing from the Vertex Form
- Lesson 17: Parameters and Graphs

## Unit 8: Extra Support Materials for Algebra 1, Unit 8 "Quadratic Equations"

### Section A: Finding Unknown Inputs (Alg1+)

- Lesson 1: Areas Around Areas

- Lesson 2: Equations and Graphs

## Section B: Solving Quadratic Equations (Alg1+)

- Lesson 3: Squares and Equations
- Lesson 4: Equations and Their Zeros
- Lesson 5: Steps in Solving Equations
- Lesson 6: Sums and Products
- Lesson 7: Integers of Quadratics
- Lesson 8: Multiplying Expressions
- Lesson 9: Equivalent Equations and Functions
- Lesson 10: Quadratic Zeros

## Section C: Completing the Square (Alg1+)

- Lesson 11: Finding Perfect Squares
- Lesson 12: Forms of Quadratic Equations
- Lesson 13: Constants in Quadratic Equations
- Lesson 14: Rewriting Quadratic Expressions
- Lesson 15: Irrational Numbers

## Section D: The Quadratic Formula (Alg1+)

- Lesson 16: Working with Quadratics
- Lesson 17: Quadratic Meanings
- Lesson 18: Solving Quadratics
- Lesson 19: Quadratic Steps
- Lesson 20: Quadratics and Irrationals
- Lesson 21: Odd and Even Numbers

## Section E: Vertex Form Revisited (Alg1+)

- Lesson 22: Features of Parabolas
- Lesson 23: Comparing Functions

## Section F: Let's Put It to Work (Alg1+)

- Lesson 24: Quadratic Situations