Florida's Algebra 1-A and 1-B courses address the need for an expanded, two-year treatment of traditional high school Algebra 1 curriculum. Focusing on review of pre-algebra skills and introductory algebra content, Algebra 1-A allows students to deepen their understanding of real numbers in their various forms and then extend their knowledge to linear equations in one and two variables. Course topics include problem solving; integers; the language of algebra; fractions and decimals; exponents; solving equations with four basic operations; solving equations with roots, powers, or multiple steps; functions; introduction to set theory; and linear equations.

Algebra 1-A features ample opportunity for students to hone their computational skills by working through practice problem sets before moving on to formal assessment.

Algebra 1-A meets Florida's Next Generation Sunshine State Standards and Benchmarks.

Length: Two semesters

UNIT 1: INTRODUCTION TO PROBLEM SOLVING

- Lesson 1: Building Basic Word Problems
- Lesson 2: A Four-Step Approach
- Lesson 3: Too Much or Too Little Information
- Lesson 4: Draw a Diagram
- Lesson 5: Use a Model or Act it Out
- Lesson 6: Make a List
- Lesson 7: Build a Chart and Find a Pattern
- Lesson 8: Guess and Check
- Lesson 9: Work Backward
- Lesson 10: Introduction to Problem Solving Wrap-Up

UNIT 2: THE LANGUAGE OF ALGEBRA

- Lesson 1: What is a Variable?
- Lesson 2: Finding and Naming Variables
- Lesson 3: Measurement and Units
- Lesson 4: Graphs, Tables, and Equations
- Lesson 5: Solving Problems with Tables and Graphs
- Lesson 6: Variable Expressions
- Lesson 7: Simplifying and Evaluating Expressions
- Lesson 8: Mathematical Sentences
- Lesson 9: Solving Mathematical Sentences
- Lesson 10: Some Guidelines for Problem Solving
- Lesson 11: The Language of Algebra Wrap-Up

UNIT 3: SOLVING EQUATIONS WITH FOUR BASIC OPERATIONS

- Lesson 1: Solving Equations Graphically
- Lesson 2: Solving Equations with Larger Numbers
- Lesson 3: Solving $x + a = b$
- Lesson 4: Solving with a Number Line
- Lesson 5: Solving Inequalities
- Lesson 6: Solving $ax = b$
- Lesson 7: Solving $\frac{x}{a} = b$
Lesson 8: Inequalities
Lesson 9: Variations of Equations and Inequalities
Lesson 10: Solving Multistep Linear Equations
Lesson 11: Literal Equations
Lesson 12: Solving Equations with Four Basic Operations Wrap-Up

UNIT 4: FUNCTIONS
Lesson 1: Domain and Range
Lesson 2: Identifying Functions
Lesson 3: Graphs of Functions
Lesson 4: Adding and Subtracting Functions
Lesson 5: Functions Wrap-Up

UNIT 5: SEMESTER 1 EXAM
Lesson 1: Semester 1 Review and Exam

UNIT 6: USING LOGIC TO SOLVE PROBLEMS
Lesson 1: Building Equations
Lesson 2: Deductive Reasoning
Lesson 3: Inductive Reasoning
Lesson 4: Logic Puzzles
Lesson 5: Problem Solving
Lesson 6: Using Logic to Solve Problems Wrap-Up

UNIT 7: LINEAR EQUATIONS
Lesson 1: Slope
Lesson 2: Slope-Intercept Equation of a Line
Lesson 3: Point-Slope Equation of a Line
Lesson 4: Parallel and Perpendicular Lines
Lesson 5: Linear Inequalities
Lesson 6: Linear Equations Wrap-Up

UNIT 8: SYSTEMS OF LINEAR EQUATIONS
Lesson 1: Two-Variable Systems: Graphing
Lesson 2: Two-Variable Systems: Substitution
Lesson 3: Two-Variable Systems: Elimination
Lesson 4: Two-Variable Systems of Inequalities
Lesson 5: Systems of Linear Equations Wrap-Up

UNIT 9: EXPONENTS AND EXPONENTIAL FUNCTIONS
Lesson 1: Definitions and Examples of Exponents
Lesson 2: Exponents and the Order of Operations
Lesson 3: Laws of Exponents
Lesson 4: Square Roots
Lesson 5: Radical Notation
Lesson 6: Exponential Functions
Lesson 7: Graphs of Exponential Functions
Lesson 8: Exponents and Exponential Functions Wrap-Up

UNIT 10: UNDOING FUNCTIONS AND MOVING THEM AROUND
Lesson 1: Parent Functions
Lesson 2: Shifting Functions
Lesson 3: Stretching and Compressing Functions
UNIT 11: SEQUENCES AND FUNCTIONS
- Lesson 1: Arithmetic Sequences
- Lesson 2: Geometric Sequences
- Lesson 3: Understanding Number Sequences
- Lesson 4: Exponential and Linear Growth
- Lesson 5: Sequences and Functions Wrap-Up

UNIT 12: SEMESTER 2 EXAM
- Lesson 1: Semester 2 Review and Exam