

## **Algebra 1B (Special Class)**

### **-Review**

-Review content from Algebra 1A: Commutative, Associative, and Distributive Properties. Simplifying Like Terms and Multiplying Binomials.

### **-Unit 2- Linear Expressions, Equations, and Inequalities:**

- Lesson 1- Equations and Their Solutions.
- Lesson 2- Using Inverse Operations to Solve Equations
- Lesson 3- Linear Equation Solving Review.
- Lesson 4- Justifying Steps in Solving an Equation.
- Lesson 5- Modeling with Linear Equations
- Lesson 6- Modeling with Linear Equations Involving Integers
- Lesson 7- Solving Linear Equations with Unspecified Constants
- Lesson 8- Inequalities
- Lesson 9- Solving Linear Inequalities
- Lesson 10- Modeling with Inequalities
- Review/Re-teach
- Test Unit 2

### **-Unit 3- Functions:**

- Lesson 1- Sets of Numbers
- Lesson 2- Interval Notation
- Lesson 3- Introductions to Functions
- Lesson 4- Function Notation
- Lesson 5- Key Features of Functions

- Lesson 6- Working with Functions in Table Form
- Lesson 7- Average Rate of Change
- Lesson 8- Average Rate of Change and Motion
- Lesson 9- More Work with Domain and Range
- Review/Re-teach
- Test Unit 3

#### **-Unit 4- Linear Functions**

- Lesson 1- Introduction to Linear Functions
- Lesson 2- More Work Graphing Functions (Lines)
- Lesson 3- Writing the Equation of a Line
- Lesson 4- Working with Linear Functions in Table Form
- Lesson 5- Modeling with Linear Functions
- Lesson 6- More Modeling with Linear Functions
- Lesson 7- Equations of Horizontal and Vertical Lines
- Lesson 8- Piecewise Linear Functions
- Lesson 9- Step Functions
- Lesson 10- Absolute Value Functions
- Lesson 11- The Truth About Graphs
- Lesson 12- Linear Inequalities with Two Variables
- Lesson 13- Introduction to Sequences
- Lesson 14- Arithmetic Sequences
- Review/Re-teach
- Test Unit 4

## **Unit 5- Linear Systems**

- Lesson 1- Solving Systems Graphically
- Lesson 2- Solving Systems by Substitution
- Lesson 3- Properties of Systems and Their Solutions
- Lesson 4- The Elimination Method
- Lesson 5- Modeling with Systems of Equations.
- Lesson 6- Solving Equations Graphically
- Lesson 7- Systems of Inequalities
- Lesson 8- Modeling with Systems of Inequalities
- Review/ Re-teaching
- Test Unit 5

## **Unit 6- Exponential Algebra and Functions**

- Lesson 1- Exponential Increase and Decrease
- Lesson 2- Geometric Sequences
- Lesson 3- Equivalent Exponential Expressions
- Lesson 4- Simplifying Fractions Involving Exponents
- Lesson 5- Zero and Negative Exponents
- Lesson 6- More Work with Exponent Properties
- Lesson 7- Introduction to Exponential Functions
- Lesson 8- Percent Review
- Lesson 9- Percent Increase and Decrease
- Lesson 10- Exponential Model Based on Percent Growth
- Lesson 11- Constructing Exponential Functions
- Lesson 12- Linear Versus Exponential Functions
- Review/ Re-teach
- Test Unit 6

## **Unit 7- Polynomials**

- Lesson 1- Introductions to Polynomials
- Lesson 2- Adding and Subtracting Polynomials
- Lesson 3- Multiplying Polynomials
- Lesson 4- More Work Multiplying Polynomials
- Lesson 5- Factoring Polynomials
- Lesson 6- Conjugate Binomials
- Lesson 7- Factoring Trinomials
- Lesson 8- Complete Factoring
- Lesson 9- Recognizing Structure to Factor
- Lesson 10- Factoring Challenging Trinomials
- Review/Re-teach
- Unit 7 Test

## **Unit 8- Quadratic Functions**

- Lesson 1- Introduction to Quadratic Functions.
- Lesson 2- The Leading Coefficient of a Quadratic
- Lesson 3- The Symmetry of Quadratic Functions
- Lesson 4- Solving Quadratic Equations Using Inverse Operations
- Lesson 5- Solving Quadratics by Completing the Square
- Lesson 6- Area and Completing the Square
- Lesson 7- More Work Solving Quadratics by Completing the Square
- Lesson 8- The Zero Product Law
- Lesson 9- More Work Factoring to Solve Quadratics
- Lesson 10- Graphs of Cubic Polynomials Functions
- Lesson 11- Solving Linear-Quadratic Systems

- Lesson 12- Quadratic Word Problems
- Review/Re-teach
- Test Unit 8

### **Unit 9- Roots and Irrational Numbers**

- Lesson 1- Integers and Rational Numbers
- Lesson 2- Square Root
- Lesson 3- Irrational Numbers
- Lesson 4- Square Root Arithmetic
- Lesson 5- Quadratic Equations with Irrational Solutions
- Lesson 6- The Quadratic Formula
- Lesson 7- Final Work with Quadratic Equations
- Review/Re-teach
- Test Unit 9

### **Unit 10- Functions and Their Transformations**

- Lesson 1- Parent Function
- Lesson 2- Vertical Shifting of Functions
- Lesson 3- Horizontal Shifting of Functions
- Lesson 4- Combined Shifting of Functions
- Lesson 5- Vertical Stretching and Compressing of Functions
- Lesson 6- Reflecting Functions Across the x-Axis
- Lesson 7- The Vertex Form of a Quadratic Function
- Review/Re-teach
- Test Unit 10

## **Unit 11- Statistics**

- Lesson 1- The Purpose of Statistics
- Lesson 2- The Standard Deviation of a Data Set
- Lesson 3- More Work with Standard Deviation
- Lesson 4- Data Distribution Shapes
- Lesson 5- Comparing Samples
- Lesson 6- Bivariate Data Analysis
- Lesson 7- Linear Regression on the Calculator
- Lesson 8- The Strength of Correlation
- Lesson 9- Categorical Data
- Lesson 10- Understanding Associations in Categorical Data
- Review/Re-teach
- Test Unit 11

## **Review for Algebra 1 Regents.**

- In class and review classes offered after school.