PUBLIC SCHOOLS OF EDISON TOWNSHIP

OFFICE OF CURRICULUM AND INSTRUCTION

Algebra 1

Length of Course:	Term
Elective/Required:	Required
Schools:	High School
Eligibility:	Grade 9 - 12
Credit Value:	5 Credits
Date Approved:	August 24, 2020
Date Revised:	August 17, 2021

TABLE OF CONTENTS

INTRODUCTION

The New Jersey Student Learning Standards (NJSLS) for Mathematics are intended to provide students with a solid foundation in expressions, equations and inequalities, and connections to modeling and functions.

This curriculum guide is standards based which reflects the NJ Student Learning Standards for Mathematics, the Mathematical Practices that are expected to be used in teaching mathematics K-12 are as follows and infused throughout the guide:

- Make sense of problems and persevere in solving them.
- Use appropriate tools strategically.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

New Jersey Student Learning Standards for Mathematics Algebra 1 Overview:

Seeing Structure in Expressions

- Interpret the structure of expressions
- Write expressions in equivalent forms to solve problems

Arithmetic with Polynomials and Rational Functions

- Perform arithmetic operations on polynomials
- Understand the relationship between zeros and factors of polynomials
- Use polynomial identities to solve problems
- Rewrite rational expressions

Creating Equations

- Create equations that describe numbers or relationships

Reasoning with Equations and Inequalities

- Understand solving equations as a process of reasoning and explain the reasoning
- Solve equations and inequalities in one variable
- Solve systems of equations
- Represent and solve equations and inequalities graphically

Interpreting Functions

- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations

Building Functions
- Build a function that models a relationship between two quantities
- Build new functions from existing functions

Linear, Quadratic, and Exponential Models
- Construct and compare linear and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model

The purpose of the revision was to further integrate the practice standards as well as incorporate technology in a meaningful way to enhance instruction and learning.

Learning mathematics with understanding is essential to enable students to problem solve. Students learn mathematics by doing not just by listening and memorizing. When mathematical facts are connected, taught in a contextual setting, applied to real world application and infused with technology, knowledge is more likely retained.

HIGH SCHOOL PACING GUIDE

Marking Period 1

0.2 Real Numbers (exclude square roots)	1 day
0.3 Operations with Integers	1 day
0.4-0.5 Operations with Rational Numbers	1 day
1.2 Order of Operations	2 days
1.4 Combining Like Terms & Distributive Property	2 days
**** Review & Quiz (0.2-0.5, 1.2, 1.4)***	2 days
1.1/2.1 Variables and Expressions (words to algebra, algebra to words)	1 day
2.2 One-Step Equations	1 day
2.3 Two-Step/Multi-Step Equations	2 days
2.4 Variables on Both Sides	2 days
**** Review & Quiz (1.1, 2.1-2.4)***	2 days
2.5 Absolute Value Equations	2 days
2.8 Literal Equations	2 days
2.6 Proportions	1 day
**** Review & Test (1.1, 2.1-2.6, 2.8)***	3 days
5.1/5.2 Solving One-Step Inequalities	1 day
5.3 Multi-Step Inequalities	1 day
5.1-5.3 Solving Word Problems With Inequalities	1 day
**** Review & Quiz (5.1-5.3)***	2 days
5.4 Compound Inequalities	2 days
5.6 Absolute Value Inequalities	2 days
5.4/5.6 Practice	1 day
**** Review & Test (5.1-5.4, 5.6)***	3 days
1.6 Relations	1 day
1.7 Functions	2 days
Review & Quarterly #1	3 days

Total: 45 days

Marking Period 2

Graphing with a Table	2 days
3.5 Arithmetic Sequences	1 day
**** Review & Quiz (1.6-1.7, Graphing with a Table, 3.5)***	2 days
3.0 Identifying Linear Functions	1 day
3.1 Graphing Using Intercepts	1 day
3.3 Rate of Change & Slope Formula	2 days
3.4 Direct Variation	2 days
**** Review & Quiz (3.0-3.4)***	2 days
4.1 Graphing Equations in Slope-Intercept Form	2 days
**** Review & Test (3.0, 3.1, 3.3, 3.4, 4.1)***	3 days
4.2 Writing Linear Equations in Slope-Intercept Form (except two points)	1 days
4.3 Writing Linear Equations Given a Point and a Slope	2 days
**** Review & Quiz (4.2-4.3)***	2 days
(Winter Break)	
4.2/4.3 Review	1 day
4.4 Parallel & Perpendicular Lines	4 days
4.2 Writing Equations Given Two Points	2 days
**** Review & Test (4.1-4.4)***	3 days
How many solutions?	1 day
6.1 Solving Systems of Linear Equations by Graphing	1 day
5.6 Graphing Inequalities	2 day
6.6 Solving Systems of Inequalities by Graphing	2 days
**** Review & Test (6.1, 5.6, 6.6)***	3 days
Review & Quarterly #2	3 days

Total: 45 days

Marking Period 3

6.2 Solving Systems by Substitution	2 days
6.3 Solving Systems by Elimination (Quick Cancel)	1 day
6.4 Solving Systems by Elimination (Multiply First)	3 days
6.2-6.4 Special Systems (No solution/Infinitely Many)	1 day
* ***Review & Test (6.2-6.4)***	3 days
8.1 Classifying, Adding & Subtracting Polynomials	1 day
7.1/7.2 Multiplying & Dividing Monomials	2 day
8.2 Multiplying a Polynomial by a Monomial	1 day
8.3/8.4 Multiplying Polynomials	2 days
**** Review & Test (7.1, 7.2, 8.1-8.4)***	3 days
8.5 Factor by GCF	2 day
8.5 Factoring by Grouping	2 days
**** Review & Quiz (8.5)***	2 days
8.6 Factoring Trinomials LC=1 (no solving) (incorporate perfect square trinomials)	1 day
8.7 Factoring Trinomials with LC>1 (no solving)	2 days
8.8 Difference of Perfect Squares	1 day
**** Review & Test (8.5-8.8)***	3 days
8.6/8.7 Solving by Factoring	2 days
**** Review & Quiz (Solving by Factoring)***	2 days
9.1/9.2 Characteristics of Quadratic Functions & Solving by Graphing	2 days
9.1 Graphing Quadratic Functions	2 days
9.3 Transformations of Quadratic Functions	2 days
Review & Quarterly #3	3 days

Total: 45 days

Marking Period 4

**** Review & Test (9.1-9.3)***	3 days
10.2 Simplifying Radical Expressions	2 days
10.3 Adding & Subtracting Radical Expressions	1 day
10.3 Multiplying Radical Expressions	1 day
10.3 Dividing Radical Expressions (Rationalizing)	2 days
**** Review & Quiz (10.2-10.3)***	2 days
10.4 Solving Using Square Roots	2 days
9.4 Solving by Completing the Square	3 days
9.5 The Discriminant	1 day
9.5 The Quadratic Formula	2 days
**** Review & Test (10.4, 9.4-9.5)***	3 days
7.5 Exponential Functions	1 day
7.6 Exponential Growth & Decay	2 days
7.6 Compound Interest	1 day
7.7 Geometric Sequences	1 day
**** Review & Quiz (7.5-7.7)***	2 days
Review & Quarterly #4	3 days

Total: 32 days

Total Class Periods: 167

SCOPE & SEQUENCE

Unit 0: Preparing for Algebra (10 days)	**Unit 5: Quadratic Functions and Equations (20 days)**
Unit 1: Solving Equations and Inequalities (20 days)	**Unit 6: Exponents and Exponential Functions (20 days)**
Unit 2: Linear Equations and Systems (22 days)	**Unit 7: Radicals and Radical Expressions (16 days)**
Unit 3: Graphing Family of Functions (26 days)	**Unit 8: Rational Functions (14 days)**
Unit 4: Polynomials (12 days)	**Unit 9: Data Analysis (10 days)**
-	**Total Days: 170**

Note - Teachers will adjust their timing and pacing as they feel necessary to accommodate actual class periods available.

Unit 0: Preparing for Algebra	
Essential Questions	**Enduring Understandings**
• How are the operations of real numbers related? • How can real numbers be used to communicate ideas in the real world? • Why is it helpful to have several different representations of the same expression? • What can the structure of an algebraic expression reveal about the mathematical or real-world situation it models?	• Expressions are used to describe patterns and real-life situations. • Operations can be used to represent verbal and algebraic models. • Symbols can be manipulated by using the order of operations to model and demonstrate real-life relationships.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Write verbal expressions for algebraic expressions. Write algebraic expressions for verbal expressions. Evaluate numerical expressions by using the order of operations. Evaluate algebraic expressions by using the order of operations. Use the Distributive Property to evaluate expressions.	A.SSE.1a Interpret terms, factors, coefficients, and expressions (including complex linear and exponential expressions) in terms of context. A.SSE.1b - Interpret complicated expressions by viewing one or more of their parts as a single entity. A.SSE.2 - Use the structure of an expression to identify ways to rewrite it.	*Glencoe Algebra I textbook* *Sections: 1.1, 1.2, 1.3, 1.4* 1.1 - Variables & Expressions Writing Expressions IXL - Write variable expressions (Algebra 1 practice) 1.2 - Order of Operations Order of Operations Millionaire Game Order of Operations With Exponents and Parentheses Math Quiz 1.3 - Properties of Numbers Properties of Numbers Quiz Properties of Real Numbers	Quiz assessment after the 4 sections have been completed.

		1.4 - The Distributive Property Distributive property with variables (practice) IXL - Distributive property	

Instructional Adjustments:	

Modifications/Student difficulties/Common errors:
 	
• Emphasize note taking strategies
• Use guided notes when necessary
• Revisit and study notebook
• Create vocabulary notecards
• Use tools/manipulatives/models
• Reword application problems
• Use handouts/graphic organizers
• Review peer work and provide feedback
• Complete error analysis process.
• Use Google Apps for Education
• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
  ○ EdPuzzle
  ○ Edulastic
  ○ Geogebra
  ○ iXL
  ○ Khan Academy
  ○ Math-Games
  ○ Math Planet
  ○ PurpleMath
  ○ Quia
  ○ Quizizz
  ○ Soft Schools
• Create a study guide for intervention
	Online resources from textbook:
	
	• Investigation Animations
	• Vocabulary Review Games
	• Multilingual eGlossary
	• Personal Tutor Interactive Videos
	• Virtual Manipulatives
	• Graphing Calculator Practice
	• Foldables
	• Self-Check Practice
	• Chapter Resource Worksheets
	• Word Problem Practice
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

Unit 1: Solving Equations and Inequalities	
Essential Questions	**Enduring Understandings**
• Why is it important to maintain equality as you solve an equation? • Are equations that appear to be different equivalent? • How do properties of solving linear equations apply to rearranging literal equations? • How do you solve compound equations and inequalities algebraically and graphically? • How do you solve absolute value equations and inequalities algebraically and graphically? • How can you represent and solve a compound inequality?	• Linear equations are solved by using inverse operations, the distributive property, and isolating a variable. • The properties of equality or inequality can be used to justify algebraic reasoning and the resulting solutions. • Linear equations can model ratios, find rates to compare given quantities, and make predictions based on the situations. • Proportions are used to solve problems involving percent, measurements, and scales. • There are relationships within equations or inequalities that result in special solution situations, including no solution or all real-number solutions. • The properties of equality and inverse operations can be used to transform literal equations into forms most helpful for a given situation. • Compound and absolute inequalities can be rewritten and understood through the intersection or union of the simple inequalities that lie within the compound inequality. • There are cases where there are no solutions or infinitely many solutions with possible restrictions.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Create equations and inequalities to represent real-world situations. Apply properties of equality to solve equations and justify the solution process.	A.CED.A.1: Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. A.CED.A.3: Represent constraints by equations or inequalities, and by	*Glencoe Algebra I textbook sections - 2.1 - 2.9, 5.1 - 5.5* 2.1 - Writing Equations Quizizz - Translating Verbal Expressions Quia Activity	Check for understanding at the completion of sections 2.1 - 2.3 - Quiz Check for understanding at the

Apply properties of inequality to solve inequalities and graph their solutions. Solve literal equations for a given variable. Transform literal equations to solve real-world problems. Solve absolute value equations. Solve compound inequalities and absolute value inequalities. Identify equations and inequalities that have no solution or infinitely many solutions, including absolute value equations and inequalities.	systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. A.REI.A.1: Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. A.REI.B.3: Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	2.2 - Solving One-Step Equations iXL - solving one-step equations Math Games - practice solving one-step 2.3 - Solving Multi-Step Equations Math Games - practice multi-step 2.4 - Solving Equations with Variables on Both Sides Khan Academy - Multi-Step Equations 2.5 - Solving Equations Involving Absolute Value Khan Academy - Absolute Value Equations iXL - Absolute Value Equations 2.6 - Ratios & Proportions Khan Academy - Ratios & Proportions iXL - Ratios & Proportions 2.7 - Percent of Change Math Games - Percent of Change Khan Academy - Percent of Change Word Problems 2.8 - Literal Equations Khan Academy - Literal Equations iXL - Literal Equations 5.1 - Solving Inequalities by Addition and Subtraction - Khan Academy - Inequalities iXL - Inequalities	completion of 2.4 - Quiz Check for understanding at the completion of 2.5 - Quiz Performance Assessment/Test at the completion of 2.1 - 2.5 Check for understanding at the completion of 2.6 - 2.8 - Quiz Check for understanding at the completion of 5.1 - 5.3 - Quiz Check for understanding at the completion of 5.4 & 5.5 - Quiz Performance assessment/Test at the completion of 5.1 - 5.5

		5.2 - Solving Inequalities by Multiplication & Division Khan Academy - Inequalities Quizizz - Inequalities 5.3 - Solving Multi-Step Inequalities YouTube Video with Examples - inequalities 5.4 - Solving Compound Inequalities Khan Academy - Compound Inequalities Practice - Compound Inequalities 5.5 - Inequalities with Absolute Value iXL - Absolute Value Inequalities Video - Absolute Value Inequalities Practice - Absolute Value Inequalities	

Instructional Adjustments:	
Modifications/Student difficulties/Common errors: • Emphasize note taking strategies • Use guided notes when necessary • Revisit and study notebook • Create vocabulary notecards • Use tools/manipulatives/models • Reword application problems • Use handouts/graphic organizers	*Online resources from textbook:* • Investigation Animations • Vocabulary Review Games • Multilingual eGlossary • Personal Tutor Interactive Videos • Virtual Manipulatives • Graphing Calculator Practice • Foldables

• Review peer work and provide feedback
• Complete error analysis process.
• Use Google Apps for Education
• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
  ○ EdPuzzle
  ○ Edulastic
  ○ Geogebra
  ○ iXL
  ○ Khan Academy
  ○ Math-Games
  ○ Math Planet
  ○ PurpleMath
  ○ Quia
  ○ Quizizz
  ○ Soft Schools
• Create a study guide for intervention
• Build a glossary notebook
	• Self-Check Practice
	• Chapter Resource Worksheets
	• Word Problem Practice
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

Unit 2: Linear Equations and Systems	
Essential Questions	**Enduring Understandings**
• What does the slope of a line represent? • Compare and contrast the slope of parallel lines and perpendicular lines. • How can a linear function be used to model real world situations? • What is the best method to solve a system of linear equations? • How do you solve a system of linear inequalities? • What are possible solution sets for systems of equations and inequalities?	• Slope shows the relationship between changing dependent variables over changing independent variables. • Slope-intercept, point-slope, and standard form are interdependently related and can model real world situations. • The relationship between two lines can be determined by comparing their slopes and y-intercepts. • Systems of equations can be solved graphically, by substitution, or by elimination. • Systems of inequalities can be solved by graphing. • Systems of equations and inequalities model real world situations to form possible solution sets to a given problem.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Solve systems of linear equations graphically and algebraically. Strategically convert between various forms for a linear equation, depending on the situation. Find the slope of a line. Write and graph direct variation equations.	A.CED.A.2: Create equations in two or more variables to represent relationships between quantities: graph equations on coordinate axes with labels and scales. A.CED.A.3: Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing	*Glencoe Algebra I textbook Sections: 6.2, 6.3, 6.4, 6.5, 3.3, 3.4, 3.6, 4.2, 4.3, 4.4* 6.2 - Substitution Systems of Linear Equations - Substitution 6.3 - Elimination Using Addition/Subtraction IXL | Solve a system of equations using elimination	Check for understanding at the completion of units 6.2 - 6.5 Check or understanding at the completion of units 3.3, 3.4, 3.6 Check or understanding at the

Solve problems involving direct variation. Write equations in slope-intercept form. Write equations of lines in point-slope form. Write an equation of the line that passes through a given point, parallel to a given line. Write an equation of the line that passes through a given point, perpendicular to a given line.	nutritional and cost constraints on combinations of different foods. A.REI.C.5: Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a nonzero multiple of the other produces a system with the same solutions. A.REI.C.6: Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. A.REI.D.11: Explain why the *x*-coordinates of the points where the graphs of the equations y=f(x) and y=g(x)intersect are the solutions of the equation f(x)=g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x))are linear, polynomial, rational, absolute value, exponential, and logarithmic functions. A.REI.D.12: Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. F-LE.B.5: Interpret the parameters of a linear or exponential function in terms of a context.	6.4 - Eliminations using Multiplication Systems of Equations: Multiplication/Addition Method Linear Systems with Two Variables (Practice Problems) 6.5 - Applying Systems of Linear Equations Applications Involving Systems of Equations Solve a system of equations using elimination: word problems 3.3 - Rate of Change/Slope IXL | Rate of change: tables IXL | Constant rate of change Linear equations & graphs Find the Slope of a Graph - Math Games 3.4 - Direct Variation Find the constant of variation Proportionality constant for direct variation (video) 3.6 - Proportional and Non-Proportional Relationships Distinguishing Between Proportional & Non-Proportional Situations Identify proportional relationships from graphs and equations 4.2 - Writing Equations in Slope Intercept Form	completion of units 4.2, 4.3, 4.4 Performance Assessment at the end of Unit 2

		Slope-intercept form: write an equation Slope-intercept equation from graph (practice) 4.3 - Writing Equations in Point-Slope Form Point Slope Form | Algebra I Quiz Point-slope form | Algebra (practice) 4.4 - Parallel and Perpendicular Lines IXL | Slopes of parallel and perpendicular lines Quia - Practice	

Instructional Adjustments:	

Modifications/Student difficulties/Common errors:
 	
• Emphasize note taking strategies
• Use guided notes when necessary
• Revisit and study notebook
• Create vocabulary notecards
• Use tools/manipulatives/models
• Reword application problems
• Use handouts/graphic organizers
• Review peer work and provide feedback
• Complete error analysis process.
• Use Google Apps for Education
• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
	Online resources from textbook:
	
	• Investigation Animations
	• Vocabulary Review Games
	• Multilingual eGlossary
	• Personal Tutor Interactive Videos
	• Virtual Manipulatives
	• Graphing Calculator Practice
	• Foldables
	• Self-Check Practice
	• Chapter Resource Worksheets
	• Word Problem Practice
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

○ EdPuzzle ○ Edulastic ○ Geogebra ○ iXL ○ Khan Academy ○ Math-Games ○ Math Planet ○ PurpleMath ○ Quia ○ Quizizz ○ Soft Schools • Create a study guide for intervention • Build a glossary notebook	

Unit 3: Graphing Family of Functions	
Essential Questions	**Enduring Understandings**

• How can you represent and describe functions?
• How can functions describe real- world situations?
• What does the domain and range of function represent? How is that applied to real world scenarios?
• Compare and contrast the characteristics of linear, quadratic, absolute-value, cubic, exponential, and square root functions.
	• Functions are a special type of relation where each value in the domain is paired with exactly one value in the range.
	• The vertical line test and mapping diagrams help to determine whether a relation is a function.
	• Some functions can be graphed or represented by equations
	• Relations and functions can be represented by a table of values, mappings, and graphs to determine the following:
	  ○ Domain and range
	  ○ Independent and Dependent Variables
	  ○ Continuous and discrete functions
	  ○ Function or relation?
	• Tables, equations, and graphs are independently related ways to represent linear functions.
	• Graphs can be used to visually represent the relationship between two variable quantities as they change.
	• The set of all solutions of an equation forms its graph.
	• A graph may include solutions that do not appear in a table.
	• Many real-world functional relationships can be represented by equations.
	• Equations can be used to find the solution of given real-world problems.
	• The value of one variable may be uniquely determined by the value of another variable. This relationship may be represented in words, tables, equations, sets of ordered pairs, and graphs

Core Content		Instructional Actions	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Represent relations in a variety of methods. Interpret graphs of relations. Determine whether a relation is a function. Identify the domain and range of functions. Use function notation to evaluate functions. Use function notation to interpret key features such as identifying the value of f(3) given the table of a function and determining x given f(x)=5. Interpret intercepts and symmetry of graphs of functions. Interpret extrema and end behavior of graphs of functions. Identify linear equations, intercepts, and zeros. Graph linear equations slope-intercept form, standard form, and point-slope form. Graph linear inequalities on the coordinate plane.	F-IF.A.1: 1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x). F-IF.A.2: Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. F.IF.7a Graph linear and quadratic functions and show intercepts, maxima, and minima. A.REI.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line). F-IF.C.7: Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. a. Graph linear and quadratic functions and show intercepts, maxima, and minima. b. Graph square root, cube root, and piecewise-defined functions, including	*Glencoe Algebra I textbook sections - 1.6 - 1.8, 3.1, 3.2, 4.1, 5.6, 7.5, 9.1, 9.3, 9.7, 10.1* 1.6 - Relations Domain and range of relations Domain and range from graph (practice) 1.7 - Functions Identify functions (Algebra 1 practice) Identifying Functions | Algebra I Quiz 1.8 - Graphs of Functions Recognize functions from graphs | Algebra (practice) Identify Functions Using Graphs 3.1 - Graphing Linear Equations Convert linear equations to standard form Intercepts from a graph (practice) Graphing Linear Equations Practice 4.1 - Graphing Equations in Slope-Intercept Form Graph from slope-intercept form (practice)	Check for understanding at the completion of units 1.6 - 1.8 - Quiz Check for understanding at the completion of units 3.1 & 4.1 - Quizzes & Performance Assessment Check for understanding at the completion of 5.6 - Quiz Check for understanding at the completion of 7.5 - Quiz Check for understanding at the completion of 9.1 & 9.3 - Quiz Check for understanding at the completion of 9.7 - Quiz Check for understanding at the completion of 10.1 - Quiz

Graph and interpret exponential functions. Graph and interpret quadratic functions. Graph and interpret square root functions. Analyze piecewise functions. Create and graph piecewise-defined functions. Interpret piecewise functions in real-world contexts.	step functions and absolute value functions.	IXL | Slope-intercept form: graph an equation • Point-Slope Point-slope form: graph an equation Point-slope form | Algebra (practice) • Standard Graph from linear standard form | Algebra (practice) Quiz & Worksheet - Writing & Graphing Standard Form Linear Equations 5.6 - Graphing Inequalities in Two Variables Graph a two-variable linear inequality | Algebra 1 math Graphs of inequalities (practice) 7.5 Graphing Exponential Functions (graphing) Graphs of exponential functions (practice) Exponential Function Practice 9.1 Graphing Quadratic Functions (graphing) Graph quadratics: standard form | Algebra (practice) 9.3 - Transformations of Quadratics Transformations of quadratic functions (Algebra 1 practice) Shift parabolas (practice) 9.7 - Special Functions Step Function - Evaluate step functions | Algebra (practice)	Performance Assessment at the completion of all graphing functions.

		Greatest Integer Function - Quiz & Worksheet - Greatest Integer Function Absolute Value Function - Graph absolute value functions (practice) Piecewise Functions - Piecewise functions graphs 10.1 Square Root Functions (graphing) The graph of a radical function (Algebra 1, Radical expressions) Graphs of square-root functions (video)	

Instructional Adjustments:	

Modifications/Student difficulties/Common errors:
 	
• Emphasize note taking strategies
• Use guided notes when necessary
• Revisit and study notebook
• Create vocabulary notecards
• Use tools/manipulatives/models
• Reword application problems
• Use handouts/graphic organizers
• Review peer work and provide feedback
• Complete error analysis process.
• Use Google Apps for Education
• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
  ○ EdPuzzle
  ○ Edulastic
  ○ Geogebra
  ○ iXL
	Online resources from textbook:
	
	• Investigation Animations
	• Vocabulary Review Games
	• Multilingual eGlossary
	• Personal Tutor Interactive Videos
	• Virtual Manipulatives
	• Graphing Calculator Practice
	• Foldables
	• Self-Check Practice
	• Chapter Resource Worksheets
	• Word Problem Practice
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

○ Khan Academy ○ Math-Games ○ Math Planet ○ PurpleMath ○ Quia ○ Quizizz ○ Soft Schools • Create a study guide for intervention • Build a glossary notebook	

Unit 4: Polynomials	
Essential Questions	**Enduring Understandings**
• Can two algebraic expressions that appear to be different be equivalent? • How are properties of real numbers related to polynomials?	• A collection of monomials can be used to form larger expressions called polynomials. • The degree of a monomial is zero. • Polynomials are classified by the highest degree and the number of terms in the expression. • Polynomials can be added or subtracted by combining like terms. • Multiplying polynomials requires the use of the distributive property. • There are special rules for simplifying the square of a binomial. • Some polynomials can be factored by taking out a Greatest Common Factor (GCF) • Polynomials with 4 or more times can often be factored by grouping terms and taking out a GCF.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Classify polynomials, identify key features, and write polynomials in a variety of forms. Add, subtract, and multiply polynomials. Factor polynomials. Rewrite polynomials to reveal the contextual interpretation.	A-SSE.A.1: Interpret expressions that represent a quantity in terms of its context.* A-APR.A.1: Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.	*Glencoe Algebra I textbook* *Sections: 8.1, 8.2, 8.3, 8.4, 8.5* 8.1 - Adding and Subtracting Polynomials IXL - Add and subtract polynomials Add & subtract polynomials (practice) 8.2 - Multiplying Polynomials by a Monomial	Check for understanding after completion of all sections (8.1 - 8.5)

	A.REI.4A: Use the method of completing the square to transform any quadratic equation in *x* into an equation of the form (x−p)2=q that has the same solutions. Derive the quadratic formula from this form.	Multiply monomials by polynomials (practice) Multiply a polynomial by a monomial 8.3 - Multiplying Polynomials Multiplying Polynomials Practice Multiplying Polynomials - Practice Problems 8.4 - Special Products Polynomial special products: perfect square (practice) Multiply difference of squares (practice) Special Products 8.5 - Using the Distributive Property Factor with distributive property (variables) (practice) Factor polynomials	

Instructional Adjustments:	
Modifications/Student difficulties/Common errors: • Emphasize note taking strategies • Use guided notes when necessary • Revisit and study notebook • Create vocabulary notecards • Use tools/manipulatives/models • Reword application problems • Use handouts/graphic organizers • Review peer work and provide feedback	*Online resources from textbook:* • Investigation Animations • Vocabulary Review Games • Multilingual eGlossary • Personal Tutor Interactive Videos • Virtual Manipulatives • Graphing Calculator Practice • Foldables • Self-Check Practice • Chapter Resource Worksheets

• Complete error analysis process.
• Use Google Apps for Education
• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
  ○ EdPuzzle
  ○ Edulastic
  ○ Geogebra
  ○ iXL
  ○ Khan Academy
  ○ Math-Games
  ○ Math Planet
  ○ PurpleMath
  ○ Quia
  ○ Quizizz
  ○ Soft Schools
• Create a study guide for intervention
• Build a glossary notebook
	• Word Problem Practice
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

Unit 5: Quadratic Functions and Equations	
Essential Questions	**Enduring Understandings**
• What are the characteristics of quadratic functions? • How can you solve a quadratic equation? • How can you use quadratic functions to model real-world situations?	• The family of quadratic functions model situations where the rate of change is not constant. • Quadratic functions are identified by intercepts, maxima, and minima. • Quadratic equations can be solved by a variety of methods including graphing, square roots, factoring, the quadratic formula, and completing the square. • The discriminant of a quadratic equation can be used to determine the number of solutions an equation has. • Systems of quadratic equations can be solved graphically and algebraically.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Factor polynomials. Rewrite polynomials to reveal the contextual interpretation. Divide polynomials. Solve quadratic equations by graphing and determining the number of solutions.	A-APR.B.2: Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder on division by x – a is p(a), so p(a) = 0 if and only if (x – a) is a factor of p(x). A-SSE.A.2: Use the structure of an expression to identify ways to rewrite it. *For example, see* $x^4–y^4$ *as* $(x^2)^2 – (y^2)^2$*, thus recognizing it as a difference of*	*Glencoe Algebra I textbook sections - 8.6 - 8.9, 11.5, 9.2, 9.4, 9.5* 8.6 - Factoring when a=1 How to Factor a Trinomial Explained! Factoring Trinomials When the Leading Coefficient is 1 8.7 - Factoring when a>1 Factoring when a > 1	Check for understanding at the completion of units 8.6 & 8.7 - Quiz Check for understanding at the completion of units 8.8 & 8.9 - Quiz Check for understanding at the completion of units 9.2, 9.4 - 9.5 Test/Performance Assessment

Solve quadratic equations by completing the square. Use the quadratic formula to solve quadratic equations. Use the discriminant of a quadratic equation to determine if it has two rational roots, two irrational roots, one root, or no real roots.	*squares that can be factored as* $(x^2 - y^2)(x^2 + y^2)$. A-SSE.B.3a: Factor a quadratic expression to reveal the zeros of the function it defines. A.REI.4A: Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x-p)2=q$ that has the same solutions. Derive the quadratic formula from this form.	Practice - Factoring when a >1 8.8 - Differences of Squares Difference of squares intro (video) Special Factoring: Differences of Squares 8.9 - Perfect Squares Factoring perfect squares (video) Perfect-Square Trinomials 11.5 - Dividing Polynomials Dividing Polynomials Polynomials - Long Division 9.2 - Solving Quadratic Equations by Graphing Solving Quadratics by Graphing 9.4 - Solving Quadratics by Completing the Square Completing the square (video) IXL - Complete the square (Algebra 1 practice) 9.5 - The Quadratic Formula The quadratic formula | Algebra (video)	

Instructional Adjustments:	
Modifications/Student difficulties/Common errors: • Emphasize note taking strategies • Use guided notes when necessary	*Online resources from textbook:* • Investigation Animations • Vocabulary Review Games • Multilingual eGlossary

• Revisit and study notebook
• Create vocabulary notecards
• Use tools/manipulatives/models
• Reword application problems
• Use handouts/graphic organizers
• Review peer work and provide feedback
• Complete error analysis process.
• Use Google Apps for Education
• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
  ○ EdPuzzle
  ○ Edulastic
  ○ Geogebra
  ○ iXL
  ○ Khan Academy
  ○ Math-Games
  ○ Math Planet
  ○ PurpleMath
  ○ Quia
  ○ Quizizz
  ○ Soft Schools
• Create a study guide for intervention
• Build a glossary notebook
	• Personal Tutor Interactive Videos
	• Virtual Manipulatives
	• Graphing Calculator Practice
	• Foldables
	• Self-Check Practice
	• Chapter Resource Worksheets
	• Word Problem Practice
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

Unit 6: Exponents and Exponential Functions	
Essential Questions	**Enduring Understandings**
• How can you simplify expressions using exponents? • How are numbers less than 1 represented with exponents? • How can you use an exponential function to interpret real-world and mathematical situations? • How does the structure of an exponential expression reveal the growth or decay behavior of an exponential function?	• Exponents can be extended to include zero and negative exponents. • Exponent expressions with the same base can be simplified using properties of exponents. • Properties of exponents allow expressions in which powers raised to a power or quantities raised to a power can be simplified. • Scientific notation is used to make it easier to read, write, and calculate extremely large or small numbers. • Calculations with numbers in scientific notation follow the properties of exponents. • Exponential growth and decay models can be used in real world scenarios including finding simple interest. • Determining the initial value and the growth rate allow you to algebraically represent or interpret an exponential function that models a specific contextual relationship.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Compare linear, quadratic, and exponential functions. Graph exponential functions, interpreting the impact of the value of a, b, and c in f(x)=abx+c . Identify the domain and range of exponential functions.	A-CED.A.1: Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. A-SSE.B.3.c: Use the properties of exponents to transform expressions for exponential functions. *For example the expression* 1.15t *can be rewritten*	*Glencoe Algebra I textbook* *Sections: 7.1, 7.2, , 7.3, 7.6* 7.1 - Multiplication Properties of Exponents Multiply & divide powers (integer exponents) (practice) Multiplication with exponents 7.2 - Division Properties of Exponents	Check for understanding after sections 7.1 - 7.3 - Quiz Assessment after completion of all sections (7.1-7.3, 7.6) - Test

Calculate the average rate of change of an exponential function from a graph and a table. Construct exponential functions to model real-world situations. Describe exponential growth and decay in the context of real-world scenarios. Identify exponential growth and decay from equations and graphs. Rewrite exponential functions to interpret the function in context. Solve exponential equations graphically. Relate geometric sequences to exponential functions. Express exponential relationships in a variety of forms: next-now, recursive, implicit ($y=ab^x$), and explicit ($f(x)=ab^x$). Describe functions using multiple representations: verbally, numerically in tables, and algebraically.	*as* $(1.15112)12t \approx 1.01212t$ *to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.* F-IF.C.8b: Use the properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in functions such as $y=(1.02)t$, $y=(0.97)t$, $y=(1.01)12t$, $y=(1.2)t10$, and classify them as representing exponential growth or decay. F-LE.A.1c: Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another. F-LE.B.5: Interpret the parameters in a linear or exponential function in terms of a context.	Properties or Exponents Multiplying & dividing powers (integer exponents) (video) Multiplication with exponents 7.3 - Rational Exponents Intro to rational exponents 7.6 - Growth and Decay Intro to exponential functions Exponential growth and decay: word problems	

Instructional Adjustments:

Modifications/Student difficulties/Common errors:

- Emphasize note taking strategies
- Use guided notes when necessary
- Revisit and study notebook
- Create vocabulary notecards
- Use tools/manipulatives/models
- Reword application problems
- Use handouts/graphic organizers
- Review peer work and provide feedback
- Complete error analysis process.
- Use Google Apps for Education
- Use supplemental programs such as:
    - Delta Math
    - Desmos
    - Discovery Education
    - EdPuzzle
    - Edulastic
    - Geogebra
    - iXL
    - Khan Academy
    - Math-Games
    - Math Planet
    - PurpleMath
    - Quia
    - Quizizz
    - Soft Schools
- Create a study guide for intervention
- Build a glossary notebook

Online resources from textbook:

- Investigation Animations
- Vocabulary Review Games
- Multilingual eGlossary
- Personal Tutor Interactive Videos
- Virtual Manipulatives
- Graphing Calculator Practice
- Foldables
- Self-Check Practice
- Chapter Resource Worksheets
- Word Problem Practice
- Enrichment Activities
- Online Self-Check Quiz
- 5-Minute Check Ins

Unit 7: Radicals and Radical Expressions	
Essential Questions	**Enduring Understandings**
• How are radical expressions represented? • Why can't all properties of square roots be used to simplify radical expressions?	• Rational exponents can be used to represent radicals. • Radical expressions can be simplified using the multiplication and division properties of square roots. • Rationalizing the denominator of a radical expression removes the radical from the denominator completely. • The denominators of some radical expressions can be rationalized by multiplying by conjugates. • The properties of real numbers can be used to perform operations with radical expressions.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Graph square root and cube root functions. Analyze square root and cube root functions. Rewrite expressions that contain rational exponents. Perform operations with rational exponents. Solve radical equations. Solve radical equations with extraneous solutions.	F-IF.C.7b: Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. A-APR.D.6: Rewrite simple rational expressions in different forms; write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using inspection, long division, or, for the more complicated examples, a computer algebra system. A-APR.D.7: Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational	*Glencoe Algebra I textbook sections - 10.1 - 10.5* 10.1 - Square Root Functions Square Root Function Examples Graphs of Square Root Functions 10.2 - Simplifying Radical Expressions How to Simplify Radicals Simplify radical expressions with variables | Algebra 1 math Simplify radical expressions involving fractions 10.3 - Ops with Radical Expressions	Check for understanding after section 10.1 - Quiz Check for understanding after sections 10.2 - 10.3 - Quiz Check for understanding after section 10.4 - Quiz Performance Assessment/Test after all sections

	expression; add, subtract, multiply, and divide rational expressions. A-REI.A.2: Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.	Adding radical expressions Multiplying Radical Expressions Simplify radical expressions: mixed review 10.4 - Radical Equations Solving Radical Equations IXL - Solve radical equations I Solve radical equations II 10.5 - The Pythagorean Theorem Video - Pythagorean Theorem Pythagorean theorem	

Instructional Adjustments:	

Modifications/Student difficulties/Common errors:
 	
• Emphasize note taking strategies
• Use guided notes when necessary
• Revisit and study notebook
• Create vocabulary notecards
• Use tools/manipulatives/models
• Reword application problems
• Use handouts/graphic organizers
• Review peer work and provide feedback
• Complete error analysis process.
• Use Google Apps for Education
• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
  ○ EdPuzzle
  ○ Edulastic
	Online resources from textbook:
	
	• Investigation Animations
	• Vocabulary Review Games
	• Multilingual eGlossary
	• Personal Tutor Interactive Videos
	• Virtual Manipulatives
	• Graphing Calculator Practice
	• Foldables
	• Self-Check Practice
	• Chapter Resource Worksheets
	• Word Problem Practice
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

○ Geogebra ○ iXL ○ Khan Academy ○ Math-Games ○ Math Planet ○ PurpleMath ○ Quia ○ Quizizz ○ Soft Schools • Create a study guide for intervention • Build a glossary notebook	

Unit 8: Rational Functions	
Essential Questions	**Enduring Understandings**
• Compare and contrast rational expressions to fractional expressions. • How can you identify an asymptote algebraically? • How can you check that you have simplified a rational expression correctly? • What are extraneous solutions?	• Inverse variation can be represented by the equation y=k/x, where k represents a constant known as the constant of variation or constant of proportionality. • The product rule for inverse variations can be used to write an equation and solve real-world problems. • A rational function is nonlinear. • Any variable that results in a denominator of zero in a rational function is excluded from the domain of the function. • An asymptote is a line that the graph of a function approaches. • A rational expression is an algebraic fraction whose numerator and denominator are polynomials. • A rational expression is in simplest form when the numerator and denominator have no common factors except 1. • To multiply and divide rational expressions, you use the same rules as multiplying or dividing fractions. • To add or subtract rational expressions with uncommon denominators you must find the least common denominator. • A rational equation contains one or more rational expressions. • Solutions that are excluded from the solution set are called extraneous.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities and Strategies**	**Assessment Check Points**
Identify and use inverse variation Graph inverse variations Identify excluded values Identify and use asymptotes to graph rational functions	A-CED.A.2: Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. F-IF.C.7b: Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	*Glencoe Algebra I textbook Sections: 11.1, 11.2, 11.3, 11.4, 11.6, 11.8* 11.1 - Inverse Variation Intro to direct & inverse variation (video) 11.2 - Rational Functions Graphs of rational functions (practice)	Check for understanding after sections 11.1, 11.2, 11.3, 11.4, 11.6 - Quiz Assessment after all sections including 11.8 - Test

Identify values excluded from the domain of a rational expression Simplify rational expression Multiply rational expressions Divide rational expressions Add/Subtract rational expressions with like denominators Add/Subtract rational expressions with unlike denominators	F-IF.C.9: Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, give a graph of one quadratic function and an algebraic expression for another and say which has the larger maximum. F-BF.B.3: Identify the effect on the graph of replacing f(x) by f(x)+k, kf(x), f(kx), and f(x+k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. F-IF.B.4: For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. F-IF.B.5: Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive	Rational functions: asymptotes and excluded values 11.3 - Simplifying Rational Functions Intro to simplifying rational expressions (article) Simplifying Rational Expressions 11.4 - Multiplying and Dividing Rational Expressions Multiplying & dividing rational expressions: monomials (video) IXL | Multiply and divide rational expressions 11.6 - Adding and Subtracting Rational Expressions Adding & subtracting rational expressions: like denominators (video) Intro to adding rational expressions with unlike denominators (video) Add and subtract rational expressions 11.8 - Rational Equations Solving Rational Equations Solve rational equations	

	integers would be an appropriate domain for the function. A-SSE.B.3.c: Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. Use the properties of exponents to transform expressions for exponential functions. N-RN.A.1: Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. N-RN.A.2: Rewrite expressions involving radicals and rational exponents using the properties of exponents.		

Instructional Adjustments:	
Modifications/Student difficulties/Common errors • Emphasize note taking strategies • Use guided notes when necessary • Revisit and study notebook • Create vocabulary notecards • Use tools/manipulatives/models • Reword application problems • Use handouts/graphic organizers • Review peer work and provide feedback • Complete error analysis process. • Use Google Apps for Education	*Online resources from textbook* • Investigation Animations • Vocabulary Review Games • Multilingual eGlossary • Personal Tutor Interactive Videos • Virtual Manipulatives • Graphing Calculator Practice • Foldables • Self-Check Practice • Chapter Resource Worksheets • Word Problem Practice

• Use supplemental programs such as:
  ○ Delta Math
  ○ Desmos
  ○ Discovery Education
  ○ EdPuzzle
  ○ Edulastic
  ○ Geogebra
  ○ iXL
  ○ Khan Academy
  ○ Math-Games
  ○ Math Planet
  ○ PurpleMath
  ○ Quia
  ○ Quizizz
  ○ Soft Schools
• Create a study guide for intervention
• Build a glossary notebook
	• Enrichment Activities
	• Online Self-Check Quiz
	• 5-Minute Check Ins

Unit 9: Data Analysis	
Essential Questions	**Enduring Understandings**
• How can collecting and analyzing data help you make decisions or predictions? • How can you make and interpret different representations of data? • What can residual plots tell you about mathematical models? • How can a two-way table be used to draw conclusions about data?	• Frequency tables and histograms display numerical data organized into intervals. • Separating data into subsets is a useful way to summarize and compare data sets. • Different measures can be used to interpret and compare data sets. • Three measures of central tendency of a set of data are mean, median, and mode. • A box-and-whisker plot displays the maximum, minimum, and quartiles of a data set. • Arithmetic sequences have function rules that can be used to find any term of the sequence. • If two sets of numerical data are related, a line of best fit on the graph can be used to estimate or predict values.

Core Content		**Instructional Actions**	
Objectives	**Alignment to NJSLS**	**Recommended Activities/Strategies**	**Assessment Check Points**
Compare the center and spread of data sets using statistical displays appropriate to the shape of the data distributions. Interpret differences in shape, center, and spread in the context of data sets. Draw a line of best fit through a scatter plot by hand and using technology.	S-ID.A.1: Represent data with plots on the real number line (dot plots, histograms, and box plots). S-ID.A.2: Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	*Glencoe Algebra I textbook sections - 4.5, 4.6, 3.5, 7.7, 7.8, 9.6* 4.5 - Scatter Plots & Lines of Fit Estimating the line of best fit exercise (video) Scatter Plots and Lines of Best Fit 4.6 - Regression & Median-Fit Lines Regression and Median Fit Lines	Check for understanding after sections 4.5 & 4.6 - Quiz Check for understanding after sections 3.5, 7.7, 7.8 - Quiz Check for understanding after all sections - Test/Performance Assessment

Assess the fit of a function by calculating residuals. Determine the equation of a line of best fit and interpret the meaning of slope and y-intercept in context. Calculate and interpret the correlation of a line using r. Understand that correlation does not imply causation. Use the line of best fit to solve problems within the constraints of the data set. Understand how data is organized in a two-way table. Construct a two-way table and interpret the table to draw conclusions. Write sequences in next-now and recursive form. Relate arithmetic sequences to linear functions. Express linear relationships in a variety of forms: next-now, recursive, implicit (y=mx+b), and explicit (f(x)=mx+b). Relate geometric sequences to exponential functions. Express exponential relationships in a variety of forms: next-now, recursive, implicit ($y=ab^x$), and explicit ($f(x)=ab^x$).	S-ID.A.3: Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). S-ID.B.6b: Informally assess the fit of a function by plotting and analyzing residuals. S-ID.B.6c: Fit a linear function for a scatter plot that suggests a linear association. S-ID.C.7: Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data. S-ID.C.8: Compute (using technology) and interpret the correlation coefficient of a linear fit. S-ID.C.9: Distinguish between correlation and causation. F-BF.A.2: Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.	3.5 - Arithmetic Sequences Intro to arithmetic sequences | Algebra (video) Arithmetic sequences IXL | Write a formula for an arithmetic sequence 7.7 - Geometric Sequences as Exponential Functions Intro to geometric sequences (video) Geometric sequences 7.8 - Recursive Formulas Recursive formulas for arithmetic sequences Write a formula for a recursive sequence IXL | Evaluate recursive formulas for sequences	

Instructional Adjustments:

Modifications/Student difficulties/Common errors:

- Emphasize note taking strategies
- Use guided notes when necessary
- Revisit and study notebook
- Create vocabulary notecards
- Use tools/manipulatives/models
- Reword application problems
- Use handouts/graphic organizers
- Review peer work and provide feedback
- Complete error analysis process.
- Use Google Apps for Education
- Use supplemental programs such as:
    - Delta Math
    - Desmos
    - Discovery Education
    - EdPuzzle
    - Edulastic
    - Geogebra
    - iXL
    - Khan Academy
    - Math-Games
    - Math Planet
    - PurpleMath
    - Quia
    - Quizizz
    - Soft Schools
- Create a study guide for intervention
- Build a glossary notebook

Online resources from textbook:

- Investigation Animations
- Vocabulary Review Games
- Multilingual eGlossary
- Personal Tutor Interactive Videos
- Virtual Manipulatives
- Graphing Calculator Practice
- Foldables
- Self-Check Practice
- Chapter Resource Worksheets
- Word Problem Practice
- Enrichment Activities
- Online Self-Check Quiz
- 5-Minute Check Ins