

Glassboro Schools Curriculum
Math, Modeling and Application

Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice	Career Readiness	Inter-Disciplinary Standards
<u>Unit 1</u> Intro to College Math <u>Duration</u> 45 days	■ 6.NS.A ■ 7.EE.3 ■ 7.NS.3 ■ 7.RP.1 ■ 7.NS.A.2 ■ 8.NS.A.1 ■ 8.NS.A.2 ■ 8.EE.A.4 ■ N.Q.1 ■ N.Q.2 ■ N.RN.3 ■ A.REI.1	- Multiply and Divide with fractions and mixed numbers - Find the least common multiple and greatest common factors of numbers - Write equivalent fractions - Add and Subtract fractions and mixed numbers - Write fractions in order - Add, Subtract, Multiply, and Divide with decimals. - Convert fractions to decimals - Compare fractions and decimals - Round decimals - To identify and order real numbers. - To add real numbers. - To subtract real numbers - To multiply real numbers - To divide real numbers - To use the order of operations to simplify an expression. - Determine least common multiple and greatest common factor	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.	LA.11-12.WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. LA.11-12.RST.11-12.4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. TECH.8.1.12.C.CS4 - Contribute to project teams to produce original works or solve problems. TECH.8.1.12.D.CS2 - Demonstrate personal responsibility for lifelong learning TECH.8.1.12.E.CS4 - Process data and report results. HS-PS1.5 – Matter and Interactions

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Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice	Career Readiness	Inter-Disciplinary Standards
Unit 2 The Language of Algebra Duration 44 days	■ A.SSE.A.1 ■ A.SSE.A.2 ■ A.SSE.B.3 ■ N.Q.1 ■ A.CED.1 ■ A.CED.3 ■ A.CED.4 ■ A.REI.1 ■ A.REI.3 ■ A.REI.11	• Use exponents and the order of operations • Identify positive and negative integers • Translate an algebraic expression • Add, subtract, multiply, and divide signed numbers • Evaluate expression • Simplify expressions. • Solve one-step equations • Solve two-step equations • Solve multi-step equations • Solve equations with variables on both sides • Rewrite equations and formulas • Solve and graph multi-step inequalities • Translate word problems into equations and inequalities and solve • To solve for a variable • To substitute values into an equation • To plot points on a rectangular coordinate plane • To rewrite a linear equations in slope-intercept form • To identify the slope and y-intercept • To graph a linear equation • Use properties of exponents involving products • Use properties of exponents involving quotients • Use zero and negative exponents • Classify and identify parts of a polynomial • Add and subtract polynomials • Multiply polynomials • Use special product patterns to multiply polynomials	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.	LA.11-12.WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. LA.11-12.RST.11-12.4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. TECH.8.1.12.C.CS4 - Contribute to project teams to produce original works or solve problems. TECH.8.1.12.D.CS2 - Demonstrate personal responsibility for lifelong learning TECH.8.1.12.E.CS4 - Process data and report results. HS-PS1.5 – Matter and Interactions HS-ETS1.3 – Engineering Design HS-LS4.3 – Biological Evolution HS-LS1.4 – Form Molecules to Organisms

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Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice	Career Readiness	Inter-Disciplinary Standards
		- Factor out a GCF - Factor trinomials of the form $x^2 + bx + c$ - Factor trinomials of the form $ax^2 + bx + c$ - Factor by grouping - Solve equations using factoring			
Unit 3 Modeling with Statistics Duration 44 days	■ S.IC.1 ■ S.IC.3 ■ S.MD.6 ■ S.ID.1 ■ S.ID.2 ■ S.ID.3 ■ S.ID.5 ■ A.CED.1 ■ A.REI.3	- Ratio - Rate Proportion - To rename a percent as a decimal and a fraction in simplest form - To rename a decimal and fraction as a percent - To use a proportion to find the missing term in a percent sentence - To solve word problems involving percentages and tax, commissions, interest, and tips - To calculate monthly payments on an installment plan - Mean, Median, Mode - Samples and Surveys - To read and construct circle graphs, bar graphs, line graphs - To read and construct histograms and box and whisker plots - Frequency Distribution	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.	LA.11-12.WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. LA.11-12.RST.11-12.4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. TECH.8.1.12.C.CS4 - Contribute to project teams to produce original works or solve problems. TECH.8.1.12.D.CS2 - Demonstrate personal responsibility for lifelong learning TECH.8.1.12.E.CS4 - Process data and report results. HS-PS1.5 – Matter and Interactions HS-ETS1.3 – Engineering Design HS-LS4.3 – Biological Evolution

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Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice	Career Readiness	Inter-Disciplinary Standards
					HS-LS1.4 – Form Molecules to Organisms
Unit 4 Essentials of Geometry Duration 14 days	■ G.CO.1 ■ G.CO.7 ■ G.CO.9 ■ G.CO.12 ■ G.GPE.7 ■ G.GMD.1 ■ G.GMD.3 ■ G.GMD.4 ■ G.MG.1 ■ G.MG.3 ■ G.C.5	• Identify and name figures. • Use segments and congruence • Use midpoint and distance formulas • Measure and classify angles • Describe angle pair relationships • Identify pairs of lines and angles • Use parallel lines and transversals • Classify polygons • Perimeter • Area • Circumference • Volume • Surface Area • Applications	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.	LA.11-12.WHST.11-12.4 - Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. LA.11-12.RST.11-12.4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. TECH.8.1.12.C.CS4 - Contribute to project teams to produce original works or solve problems. TECH.8.1.12.D.CS2 - Demonstrate personal responsibility for lifelong learning TECH.8.1.12.E.CS4 - Process data and report results. HS-PS1.5 – Matter and Interactions HS-ETS1.3 – Engineering Design HS-LS4.3 – Biological Evolution HS-LS1.4 – Form Molecules to Organisms

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Unit 1		
Content & Practice Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
■ 6.NS.A Apply and extend previous understandings of multiplication and division to divide fractions by fractions. ■ 7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. ■ 7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers ■ 7.RP.1 Solve real-world and mathematical problems involving the four operations with rational numbers. ■ 7.NS.A.2 . Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. ■ 8.NS.A.1 Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. ■ 8.NS.A.2 Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): - Units are associated with fractions, decimals, and the real number system - Quantities may be used to model attributes of real-world situations. Students are able to: - multiply and divide with fractions and mixed numbers - find the least common multiple and greatest common factors of numbers - write equivalent fractions - add and subtract fractions and mixed numbers - write fractions in order - add, subtract, multiply, and divide with decimals. - compare and convert fractions and decimals - round decimals - identify and order real numbers. - add, subtract, multiply, and divide real numbers, including signed numbers. - use the order of operations to simplify an expression. - determine least common multiple and greatest common factor - identify positive and negative integers - evaluate and simplify expressions Learning Goal 1: Perform arithmetic operations with fractions, mixed numbers, decimals, and real numbers. Also, students will find least common multiply and greatest common factor in order to write equivalent fractions. Then, students must be able to put fractions and decimals in order. Learning Goal 2: Students will learn the real number line. They will add, subtract, multiply, and divide rea numbers, and use the order of operations. Finally, students will perform operations with positive and negative numbers. Then they will simplify and evaluate expressions. Essential Question(s): - How do you perform operations with fractions and decimals? - How do you write an equivalent fraction? - How do you write fractions in order from least to greatest? - How do you convert a fraction to a decimal? - How do you round a decimal? - What is a real number? - How do you perform basic mathematical operations with real numbers? - How do you use the order of operations? - How do you perform operations with signed numbers? - How do you simplify an expression?

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■ 8.EE.A.4 Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. ■ N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; Choose and interpret units consistently in formulas; Choose and interpret the scale and the origin in graphs and data displays. ■ N.Q.2 Define appropriate quantities for the purpose of descriptive modeling. ■ N.RN.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational. ■ A.REI.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.		
Unit 1		
Formative Assessment Plan	Summative Assessment Plan	

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Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.

The students will be assessed in a variety of ways using formative assessments. The students will be assessed through teacher observations throughout the unit, as well as homework provided where applicable. The students may also be assessed, but not limited, to the following strategies: oral responses, written responses, discussions, individual whiteboards, peer-assessments, teacher led questioning, self-assessments, review-games, etc...

Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.

The students will be assessed in a variety of ways using summative assessments. The following assessments may be used to demonstrate mastery of skills of the material covered in this particular unit: homework, chapter quizzes, projects, chapter tests, benchmark assessments, midterm exams, final exams, and PARCC Test (or other state mandated assessment)

Focus Mathematical Concepts

Prerequisite skills:

To be successful in Unit 1 the students will have to have a strong understanding of the following prerequisite skills:
 Understanding that parts of a whole must be partitioned into equal-sized parts across different models

In this unit the students will learn how to model and apply with an introduction to college mathematics.

The duration of this unit should be approximately forty-five days. A pacing guide is attached to assist in determining the appropriate time for each subtopic in this unit. The pacing guide is designed for a full year, one hundred and eighty-day, course.

Days 1 – 10: (Section 1) The students will begin the section with an introduction to mathematics. The students will write equivalent fractions and use this content to perform operations with fractions. Before moving on to the next focus of this section the students will demonstrate their understanding by completing an assessment provide by the teacher. This part of the unit should be completed in a total of approximately ten days.

Days 11 – 20: (Section 2) The students will then focus on decimals. The students will learn the properties of rounding decimals in order to perform operations with decimals. Students will then compare and convert fractions and decimals. Before moving on to the next focus of this unit the students will demonstrate their understanding of the concept by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately ten days.

Days 21 – 33: (Section 3) The students will continue Unit 1 by the real number system. Students will be taught how to order and perform operations with real numbers. The students will continue this concept y applying the order of operations. Finally, a review of least common multiple and greatest common factor will be competed on real numbers. The students will demonstrate their understanding of the this focus of the unit by completing an assessment provided by the teacher before moving on to the next part of the unit. This part of the unit should be completed in a total of approximately thirteen days.

Days 34 – 45: (Section 4) The last focus of Unit 1 will be an introduction to signed numbers. The students will explore properties of signed umbers including exponents. Students will then perform operations with signed numbers. Finally, students will evaluate expression and perform operation with terms. This unit will conclude with the students demonstrating their understanding of all concepts. This part of the unit should be completed in a total of approximately twelve days.

Primary Resources

Supplementary Resources / Technology Integration

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Holt McDougal Larson – Algebra 1 textbook – common core 2012 edition Chapter 1: Expressions, Equations, and Functions	Online textbook provided by Holt McDougal Larson The online textbook provides the following resources: interactive practice tests, chapter review games, video tutor, power point presentations, at home tutor, animated math, games, TI activities alignment KHAN Academy TI-84 Plus Graphing Calculators TI graphing calculator activities PARCC Algebra I practice and released questions Laptops Individual blank and graphing whiteboards Graph paper ALEKS Remedial Program
Academic Vocabulary	
Rounding, whole number, fraction, equivalent fraction, addition, subtraction, multiplication, division, decimal, compare, convert, ordering, real number, integer, irrational, rational, whole number, order of operations, least common multiple, greatest common factor, exponent, positive, negative, signed number, evaluate expressions, terms	
UDL / Modifications	Total Participation Techniques
Gifted & Talented: Encourage students to explore contextual complexity, projects, synthesize concepts and apply concepts to content using high level thinking, and encouraging independent investigations. Compact curriculum to allow gifted students to move more quickly through the unit. Complete Standardized Test Practice for each topic upon completion of the assigned work. Complete sample PARCC questions upon completion of the assigned work. Modifications: Modify the amount of work, teach students to self-assess to determine what further practice is needed, allow for alternate models for responding, incorporate remediation and skills readiness for each topic. Provide a list of key words representing operations to allow the students a reference guide for translating verbal phrases into equations and inequalities. Provide examples of rules, tables, and graphs of functions to provide as a reference guide in representing functions. Provide visual clues (i.e. Drawing a vertical line through the equal sign) to allow the students a better visual representation of how to balance and solve equations. Provide a scale for the students, if necessary, to visualize the concept of balancing an equation. Provide a hands-on activity involving ramps to allow the students to visualize the concept of slope. Show the students how to label the points and information needed to write lines of equations and how to replace the information in the general linear equations forms.	As appropriate, students: - will work collaboratively (peer talking, cooperative learning); - will utilize movement (change in seating arrangements, gather supplies, visually express understanding through gestures) - will communicate verbally (call out response, story-telling, general conversation) - will experience verve (be presented with variety and choices in lesson activities)

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Use a number line to highlight and explain the concepts of absolute value, absolute value equations, and absolute value inequalities.

Accommodations for Individual Student's Needs: Alternative assessments, provided examples of correctly completed work, break task into smaller parts, present information into multiple formats, provide notetaking guides on each subtopic, provide a study guide for each topic, provide lecture/notes, adjust length of assignment, extra time for assignments, and provide formulas and sample problems to facilitate independence.

ELL: Publisher prepared Multi-Language Visual Glossary. Provide unit vocabulary in advance of the lesson

Unit 2		
Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
■ A.SSE.A.1 Interpret expressions that represent a quantity in terms of its context ■ A.SSE.A.2 Use the structure of an expression to identify ways to rewrite it. ■ A.SSE.B.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. ■ N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision.	Concept(s): - Identify different parts of an expression, including terms, factor, and constants. - Explain the meaning of parts of an expression in context. - Equations and inequalities describe relationships - Equations can represent real-world and mathematical problems - Polynomials are closed, under the operation of addition, subtraction, and multiplication Students are able to: - solve multi-step equations - solve equations with variables on both sides - rewrite equations and inequalities - translate word problems into equations and inequalities and solve - plot points on a rectangular coordinate plane - identify slope and y-intercept

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Unit 2		
Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
in formulas; choose and interpret the scale and the origin in graphs and data displays. ■ A.CED.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.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 nutritional and cost constraints on combinations of different foods ■ A.CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V = IR$ to highlight resistance R. ■ A.REI.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.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. ■ A.REI.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,		- graph a linear equations in various forms - add, subtract, and multiply polynomials - factor out a GCF - factor trinomials to solve equations Learning Goal 3: Solve linear equations and linear inequalities. Students will solve literal equations. They will also find ways to apply these skills to solving real world problems. Learning Goal 4: Find solutions in equations with two variables, to represent individual solutions on a coordinate plane, and graph linear equations. Learning Goal 5: Use properties of exponents to simplify expressions. Students will classify polynomials using several criteria. They will also add, subtract, and multiply with polynomials. Factor to produce equivalent forms of quadratic expression in one variable. Essential Question(s): - How do you solve a linear equation? - How do you solve a linear inequality? - How do I translate this sentence into an equation or inequality? - How do you solve an equation if it has more than one variable? - How can you graph a linear equation? - How do I factor out a GCF? - How do you factor a trinomial? - How do I solve an equation using factoring?

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Unit 2		
Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
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		
Unit 2		
Formative Assessment Plan	Summative Assessment Plan	
<i>Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.</i> The students will be assessed in a variety of ways using formative assessments. The students will be assessed through teacher observations throughout the unit, as well as homework provided where applicable. The students may also be assessed, but not limited, to the following strategies: oral responses, written responses, discussions, individual whiteboards, peer-assessments, teacher led questioning, self-assessments, review-games, etc...	<i>Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.</i> The students will be assessed in a variety of ways using summative assessments. The following assessments may be used to demonstrate mastery of skills of the material covered in this particular unit: homework, chapter quizzes, projects, chapter tests, benchmark assessments, midterm exams, final exams, and PARCC Test (or other state mandated assessment)	
Focus Mathematical Concepts		
Prerequisite skills: To be successful in Unit 2: The Language of Algebra, the students will have to have a strong understanding of the following prerequisite skills: Graph linear equations, solve multi-step equations, solve inequalities, evaluate powers, order decimals, graph functions. In this unit the students will learn how to model linear functions, and polynomials. The duration of this unit should be approximately forty-six days. A pacing guide is attached to assist in determining the appropriate time for each subtopic in this unit. The pacing guide is designed for a full year, one hundred and eighty-day course. Days 46 – 56: (Section 5) The students will begin the unit by learning about linear equations and inequalities. The students will learn the properties of equality in the course of solving simple one-step equations and then employ those properties to solve increasingly complex multi-step equations. After the students demonstrate their ability to solve one-step, two-step, and multi-step linear equations in one variable the students will then solve proportions using the multiplicative property of equality. Before moving on to the next focus of this unit the students will demonstrate their understanding of the solving linear equations in one variable by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately ten days. Days 57 – 68: (Section 6) The students will then focus on graphing linear equations. Students will be taught a variety of graphing techniques, including making a table of values and plotting points, identifying and using just the x- and y- intercepts, and identifying and using just the slope and y-intercept. Students will recognize that the slope can be interpreted as a rate of change in real world graphs. Students will examine a special type of linear relationship known as direct variation, and they use direct variation models to solve real-world		

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problems. This part of the unit will conclude by introducing students to function notation while examining the effects of m and b on the graph of $f(x) = mx + b$. The students will demonstrate their understanding of the this focus of the unit by completing an assessment provided by the teacher before moving on to the next part of the unit. This part of the unit should be completed in a total of approximately eleven days.

Days 69 – 80 (Section 7) The students will continue the unit focusing on polynomials. The students will learn how to identify, classify, add, subtract, and multiply polynomials. The students will learn to use vertical and horizontal formats to find sums and differences. To find products, the students will use the distributive property, tables of products, and patterns (including the FOIL pattern, the square of a binomial pattern, and the sum and difference patterns). The students will then learn to write polynomials to describe and solve real-world problems and solve polynomial equations. Before moving on to the next focus of this unit the students will demonstrate their understanding of polynomials and factoring by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately eleven days.

Days 81 – 90 (Section 8) The students will finish Unit 2 focusing on factoring. The students will then learn how to factor polynomials and use factoring to solve equations, and to find the roots of equations. Before moving on to the next focus of this unit the students will demonstrate their understanding of factoring by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately nine days.

Primary Resources	Supplementary Resources / Technology Integration
Holt McDougal Larson – Algebra 1 textbook – common core 2012 edition Chapter 2: Solving Linear Equations Chapter 3: Graphing Linear Equations and Functions Chapter 4: Writing Linear Equations Chapter 5: Solving and Graphing Linear Inequalities Chapter 8: Polynomials and Factoring	Online textbook provided by Holt McDougal Larson The online textbook provides the following resources: interactive practice tests, chapter review games, video tutor, power point presentations, at home tutor, animated math, games, TI activities alignment KHAN Academy TI-84 Plus Graphing Calculators TI graphing calculator activities PARCC Algebra I practice and released questions Laptops Individual blank and graphing whiteboards Graph paper ALEKS Remedial Program

Academic Vocabulary

Variable, open sentence, precision, algebraic expression, equation, inequality, significant digits, power, exponent, base, solution of an equation or inequality, function, domain, range, order of operations, verbal model, formula, independent variable, dependent variable, rate, unit rate, square root, radicand, perfect square, irrational number, real numbers, inverse operations, equivalent expressions, identity, ratio, proportion, cross product, scale drawing, scale model, scale, literal equation, quadrant, standard form of a linear equation, linear function, x-intercept, y-intercept, slope, rate of change, slope-intercept form, parallel, direct variation, constant of variation, function notation, family of functions, parent linear function, point-slope form, converse, perpendicular, scatter plot, correlation, line of fit, best-fitting line, linear regression, interpolation, extrapolation, zero of a function, graph of an inequality, equivalent inequalities, compound inequality, absolute value equation, absolute deviation, linear inequality in two variables, graph of an inequality in two variables monomial, degree, polynomial, leading coefficient, binomial, trinomial, roots, factor completely, quadratic function, parabola,

UDL / Modifications	Total Participation Techniques
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Gifted & Talented: Encourage students to explore contextual complexity, projects, synthesize concepts and apply concepts to content using high level thinking, and encouraging independent investigations. Compact curriculum to allow gifted students to move more quickly through the unit. Complete Standardized Test Practice for each topic upon completion of the assigned work. Complete sample PARCC questions upon completion of the assigned work.

Modifications: Modify the amount of work, teach students to self-assess to determine what further practice is needed, allow for alternate models for responding, incorporate remediation and skills readiness for each topic. Show the students how to use a graphing calculator to solve a system of linear equations as a solution method, as well as a method to check your answers. Incorporate real world examples of solving systems of linear equations (i.e. auto mechanic costs, student/adult attendance at events, rental car costs, etc...) to show the importance of solving these systems. Have the students expand an exponential expression (i.e. $x^3 = x \cdot x \cdot x$) to allow them a better visual representation of the properties of exponents and applying the properties of exponents.

Accommodations for Individual Student's Needs: Alternative assessments, provided examples of correctly completed work, break task into smaller parts, present information into multiple formats, provide notetaking guides on each subtopic, provide a study guide for each topic, provide lecture/notes, adjust length of assignment, extra time for assignments, and provide formulas and sample problems to facilitate independence.

ELL: Publisher prepared Multi-Language Visual Glossary. Provide unit vocabulary in advance of the lesson

As appropriate, students:

- a. will work collaboratively (peer talking, cooperative learning);
- b. will utilize movement (change in seating arrangements, gather supplies, visually express understanding through gestures)
- c. will communicate verbally (call out response, story-telling, general conversation)
- d. will experience verve (be presented with variety and choices in lesson activities)

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Unit 3		
Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
■ S.IC.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population ■ S.IC.3 . Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each. ■ S.MD.6 Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator). ■ S.ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots). ■ S.ID.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. ■ S.ID.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.5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data. ■ A.CED.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.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision.	Concept(s): • Appropriate use of statistic depends on the shape of the data distribution. Students are able to: • rename a percent as a decimal and a fraction in simplest form • rename a decimal and fractions as a percent • find the missing terms in a percent sentence • use a proportion to find the missing term in a percent sentence • solve word problems involving percent and tax, commissions, interest, and tips • calculate monthly payments on an installment plan • represent data with dot plots, histograms, and box plots on the real number line • represent two or more data sets with plots and use appropriate statistics to compare their center and spread. • interpret differences in shape, center, and spread in context. • explain possible effects of extreme data points (outliers) when summarizing data and interpreting shape, center and spread. Learning Goal 6: Rewrite decimals and fractions as percent's and vice versa. Students will solve percentage equations and use proportions to find rate, base, and percentage. Students will also apply their knowledge to solving a variety of real-world application problems. Learning Goal 7: Represent data with plots (dot plots, histograms, and box plots) on the real number line. Learning Goal 8: Compare center and spread of two ro more data sets, interpreting differences in shape, center, and spread in the context of the data, taking into account the effects of outliers. Essential Question(s): • What is a percent? • How do you rename fractions and decimals into percent's? • How do you use ratio proportions to solve percent problems? • What is a mean, median, mode, and range? • How do you construct plots (dot plots, histograms, and box plots)?

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Unit 3		
Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
■ A.REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.		
Unit 3 Algebra 1		
Formative Assessment Plan		Summative Assessment Plan
<i>Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.</i> The students will be assessed in a variety of ways using formative assessments. The students will be assessed through teacher observations throughout the unit, as well as homework provided where applicable. The students may also be assessed, but not limited, to the following strategies: oral responses, written responses, discussions, individual whiteboards, peer-assessments, teacher led questioning, self-assessments, review-games, etc...		<i>Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.</i> The students will be assessed in a variety of ways using summative assessments. The following assessments may be used to demonstrate mastery of skills of the material covered in this particular unit: homework, chapter quizzes, projects, chapter tests, benchmark assessments, midterm exams, final exams, and PARCC Test (or other state mandated assessment)
Focus Mathematical Concepts		
Prerequisite skills: To be successful in Unit 3: Modeling with Statistics, the students will have to have a strong understanding of the following prerequisite skills: Mean, median, and mode, simplify fractions, add and subtract fractions, multiply fractions In this unit students will learn modeling with statistics. The duration of this unit should be approximately forty-four days. A pacing guide is attached to assist in determining the appropriate time for each subtopic in this unit. The pacing guide is designed for a full year, one hundred and eighty day course		

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Days 91 – 115: (Section 9) The students will begin the unit focusing on ratios and rates. The students will use the multiplication property of equality as well as the cross products by solving proportions. Students will practice with percent equations and applications of the concept. Before moving on to the next focus of this unit the students will demonstrate their understanding by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately twenty-four days.

Days 116 – 135: (Section 10) The students will continue Unit 3 by focusing on statistical analysis. The students will learn how to identify potentially biased samples and questions. Lastly, the students will learn how to compare measures of central tendency and measures of dispersion, and analyze and display data. The students will demonstrate their understanding of modeling with statistics by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately nineteen days.

Primary Resources	Supplementary Resources / Technology Integration
Holt McDougal Larson – Algebra 1 textbook – common core 2012 edition Chapter 10: Data Analysis	Online textbook provided by Holt McDougal Larson The online textbook provides the following resources: interactive practice tests, chapter review games, video tutor, power point presentations, at home tutor, animated math, games, TI activities alignment KHAN Academy TI-84 Plus Graphing Calculators TI graphing calculator activities PARCC Algebra I practice and released questions Laptops Individual blank and graphing whiteboards Graph paper ALEKS Remedial Program
Academic Vocabulary	
Rate, ratio, proportion, cross products, percent, mean, median, mode, range, survey, sample, measure of dispersion, range, marginal frequency, joint frequency, stem-and-leaf plot, frequency, histogram, box-and-whisker plot, interquartile range, outlier	
UDL / Modifications	Total Participation Techniques
Gifted & Talented: Encourage students to explore contextual complexity, projects, synthesize concepts and apply concepts to content using high level thinking, and encouraging independent investigations. Compact curriculum to allow gifted students to move more quickly through the unit. Complete Standardized Test Practice for each topic upon completion of the assigned work. Complete sample PARCC questions upon completion of the assigned work. Modifications: Modify the amount of work, teach students to self-assess to determine what further practice is needed, allow for alternate models for responding, incorporate remediation and skills readiness for each topic. Introduce the students to the area model method on how to multiply polynomials and explain the similarities to the	As appropriate, students: - will work collaboratively (peer talking, cooperative learning); - will utilize movement (change in seating arrangements, gather supplies, visually express understanding through gestures) - will communicate verbally (call out response, story-telling, general conversation) - will experience verve (be presented with variety and choices in lesson activities)

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Punnett Square from Biology to allow for a better understanding on how to multiply polynomials. Have the students use highlighters or different shapes to identify like terms to make it easier to combine like terms. Provide the students with a step-by-step guide to factoring polynomials to allow for a guide when they are to factor polynomials. Perform a hands on activity involving throwing or kicking a ball to help relate the concept of quadratic graphs and the vertical motion model, as well as the concepts of the properties of quadratic graphs.

Accommodations for Individual Student's Needs: Alternative assessments, provided examples of correctly completed work, break task into smaller parts, present information into multiple formats, provide notetaking guides on each subtopic, provide a study guide for each topic, provide lecture/notes, adjust length of assignment, extra time for assignments, and provide formulas and sample problems to facilitate independence.

ELL: Publisher prepared Multi-Language Visual Glossary. Provide unit vocabulary in advance of the lesson

Unit 4		
Content & Practice Standards		Critical Knowledge & Skills
■ G.CO.1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. ■ G.CO.7 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent. ■ G.CO.9 ■ G.CO.12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). <i>Copying a segment; copying an angle;</i>	MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): - Points, line, plane, distance along a line - Real-world objects can be described, approximately, using geometric shapes their measures, and their proportions. Students are able to: - use point, line, distance along a line and/or distance around a circular arc to give a precise definition of - angle; - circle (the set of points that are the same distance from a single point - the center); - perpendicular line (two lines are perpendicular if an angle formed by the two lines at the point of intersection is a right angle); - parallel lines (distinct lines that have no point in common); - and line segment. - perform formal constructions using a variety of tools and methods including: - copying a segment; - copying an angle; - bisecting a segment; - bisecting an angle; - constructing perpendicular lines;

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Unit 4		
Content & Practice Standards		Critical Knowledge & Skills
<i>bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.</i> ■ G.GPE.7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula. ■ G.GMD.1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's principle, and informal limit arguments. ■ G.GMD.3 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. ■ G.GMD.4 Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects. ■ G.MG.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). ■ G.MG.3 Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios). ■ G.C.5 Derive using similarity the fact that the length of the arc intercepted by an angle is		– constructing the perpendicular bisector of a line segment; – constructing a line parallel to a given line through a point not on the line; – constructing an equilateral triangle; – constructing a square; – and constructing a regular hexagon inscribed in a circle. • identify the congruencies underlying each construction. • model real-world situations, applying density concepts based on area and volume Learning Goal 9: Use the undefined notion of a point, line, distance along a line and distance around a circular arc to develop definitions for angles, circles, parallel lines, perpendicular lines and line segments. Learning Goal 10: Make formal constructions using a variety of tools (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.) and methods. Learning Goal 11: Apply concepts of density based on area and volume in modeling situations Essential Question(s)? • How do you name geometric figures? • What are congruent segments? • How do you find the midpoint between two points? • How do you identify whether an angle is acute, right, obtuse, or straight? • How do you identify complementary and supplementary angles? • How do you classify polygons? • How do you find the area of a polygon? • When is a solid a polyhedron? • How do you find volume and surface area?

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Unit 4		
Content & Practice Standards		Critical Knowledge & Skills
proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.		
Unit 4 Algebra 1		
Formative Assessment Plan		Summative Assessment Plan
<i>Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.</i> The students will be assessed in a variety of ways using formative assessments. The students will be assessed through teacher observations throughout the unit, as well as homework provided where applicable. The students may also be assessed, but not limited, to the following strategies: oral responses, written responses, discussions, individual whiteboards, peer-assessments, teacher led questioning, self-assessments, review-games, etc...		<i>Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.</i> The students will be assessed in a variety of ways using summative assessments. The following assessments may be used to demonstrate mastery of skills of the material covered in this particular unit: homework, chapter quizzes, projects, chapter tests, benchmark assessments, midterm exams, final exams, and PARCC Test (or other state mandated assessment)
Focus Mathematical Concepts		
Prerequisite skills: Simplify absolute value expressions, evaluate variable expressions, solve equations, use angle pair relationships, sketch lines, simplify fractions, solve multi-stop equations, determine midpoint, use theorems about parallel lines, use transformations, use similar figures In this unit students will learn the essentials of Geometry. The duration of this unit should be approximately forty-four days. A pacing guide is attached to assist in determining the appropriate time for each subtopic in this unit. The pacing guide is designed for a full year, one hundred and eighty-day course. Days 136 - 150: (Section 11) Students will be introduced to geometric concepts that will be used throughout the unit. Students will identify and name figures such as points, lines, planes, and rays. They measure line segments, comparing lengths and identifying congruent segments. Their work with measurement includes the distance formula and the midpoint formula. Students classify angles and polygons. They measure angles and identify important angle pairs such as complementary and supplementary angles. Before moving on to the next focus of this unit the students will demonstrate their understanding by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately fourteen days. Days 151-165: (Section 12) Students will focus on reasoning about parallel lines and perpendicular lines. Students learn to identify corresponding angles, consecutive interior angles, alternate interior angles, and alternate exterior angles. They use postulates and theorems about these angle pairs when they are formed by parallel lines intersected by a transversal. In particular, students prove lines are parallel and demonstrate theorems about perpendicular lines. Algebra connections are continually made, as students find slopes of parallel and perpendicular lines, and write and graph equations of lines that are parallel and perpendicular to given lines. Before moving on to the next focus of this unit the students will demonstrate their understanding by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately fourteen days.		

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Days 166 – 180: (Section 13) Students will develop and use formulas for the area of triangles, parallelograms, trapezoids, and other polygons. They will use ratios to find areas of similar polygons, and use ratios of areas to find missing lengths in similar figures. Students will explore circles, relating arc lengths and circumference to areas of sectors, and develop and use a formula for the area of a regular polygon. Students will use lengths of segments and areas of regions to calculate probabilities. Before moving on to the next focus of this unit the students will demonstrate their understanding by completing an assessment provided by the teacher. This part of the unit should be completed in a total of approximately fourteen days.

Primary Resources	Supplementary Resources / Technology Integration
Holt McDougal Larson –Geometry textbook – common core 2012 edition Chapter 1: Essentials of Geomtrety Chapter 11: Measurement of Figures and Solids	Online textbook provided by Holt McDougal Larson The online textbook provides the following resources: interactive practice tests, chapter review games, video tutor, power point presentations, at home tutor, animated math, games, TI activities alignment KHAN Academy TI-84 Plus Graphing Calculators TI graphing calculator activities PARCC Algebra I practice and released questions Laptops Individual blank and graphing whiteboards Graph paper Powerschool Benchmarking ALEKS Remedial Program
Academic Vocabulary	
Circumference, arc length, sector of a circle, center of a polygon, radius of a polygon, apothem, central angle of a regular polygon, probability, geometric probability, polyhedron, face, edge, vertex, Platonic solids, cross section, volume, sphere, point, line, plane), collinear, coplanar, line segment, endpoints, ray, opposite rays, intersection, postulate, axiom, coordinate, distance, between, congruent segments, midpoint, segment bisector, angle, vertex, acute, right, obtuse, straight, congruent angles, angle bisector, construction, complementary angles, supplementary angles, adjacent angles, linear pair, vertical angles, polygon, convex, concave, n-gon, equilateral, equiangular, regular, parallel lines, skew lines, parallel planes, transversal, corresponding angles, alternate interior angles, alternate exterior angles, consecutive interior angles, slope, slope-intercept form, standard form, scalene, isosceles, equilateral, acute, right, obtuse, equiangular, interior angles, exterior angles, congruent figures, corresponding parts, rigid motions, right triangle, legs, hypotenuse, vertex angles, base angles, transformation, image, translation, reflection, rotation, preimage, isometry, vector, component form, matrix, element, dimensions, line of reflections, center of rotation, angle of rotation, slide reflection, composition of transformation, line symmetry, line of symmetry rotational symmetry, center of symmetry scalar multiplication	
UDL / Modifications	Total Participation Techniques
Gifted & Talented: Encourage students to explore contextual complexity, projects, synthesize concepts and apply concepts to content using high level thinking, and encouraging independent investigations. Compact curriculum to allow gifted students to move more quickly through the unit. Complete Standardized Test Practice for each topic upon completion of the assigned work. Complete sample PARCC questions upon completion of the assigned work.	As appropriate, students: - will work collaboratively (peer talking, cooperative learning); - will utilize movement (change in seating arrangements, gather supplies, visually express understanding through gestures) - will communicate verbally (call out response, story-telling, general conversation)

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Modifications: Modify the amount of work, teach students to self-assess to determine what further practice is needed, allow for alternate models for responding, incorporate remediation and skills readiness for each topic. Allow the students the opportunity to complete a survey to better understand the concepts and properties of surveys. Also, by creating completing a survey the students will be able to analyze the data and further their understanding of the properties of data and data analysis. Show the students how to use the graphing calculator to calculate probabilities, permutations, and combinations. Also, show the students how to use the use the graphing calculator to create box-and-whisker plots, histograms, and to analyze data. Provide manipulatives (i.e. dice, playing cards, etc..) to allow the students to make better connections to calculating probabilities.

Accommodations for Individual Student's Needs: Alternative assessments, provided examples of correctly completed work, break task into smaller parts, present information into multiple formats, provide notetaking guides on each subtopic, provide a study guide for each topic, provide lecture/notes, adjust length of assignment, extra time for assignments, and provide formulas and sample problems to facilitate independence.

ELL: Publisher prepared Multi-Language Visual Glossary. Provide unit vocabulary in advance of the lesson

d. will experience verve (be presented with variety and choices in lesson activities)

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Marking Period 1

Section 1	• Introduction • Rounding Whole Numbers • Writing Equivalent Fractions • Fractions ○ Addition ○ Subtraction ○ Multiplication ○ Division	NJSLS-6.NS.A NJSLS-7.EE.3 NJSLS-7.NS.3 NJSLS-7.RP.1 NJSLS-7.NS.A.2d	Days 1-10
Section 2	• Decimals ○ Addition ○ Subtraction ○ Multiplication ○ Division • Rounding Decimals • Comparing and Converting Fractions and Decimals	NJSLS-7.NS.3 NJSLS-7.NS.A.2 NJSLS-8.NS.A.1 NJSLS-8.EE.A.4	Days 11 - 20
Section 3	• Real Numbers and Ordering ○ Adding ○ Subtracting ○ Multiplying ○ Dividing • Order of Operations • Least Common Multiple & Greatest Common Factor	NJSLS-8.NS.A.1 NJSLS-8.NS.A.2 NJSLS-N.Q.1 NJSLS-N.Q.2 NJSLS-N.RN.3 NJSLS-A.REI.1	Days 21 - 33
Section 4	• Exponents • Positive & Negative Integers • Properties of Signed Numbers • Signed Numbers ○ Add ○ Subtract ○ Multiply ○ Divide • Evaluate Expressions • Operations with Terms	NJSLS-7.NS.A.1 NJSLS-7.NS.A.2 NJSLS-7.NJ.A.3 NJSLS-A-SSE.A.1 NJSLS-A-SSE.A.2 NJSLS-A-SSE.B.3 NJSLS-N.Q.1 NJSLS-A.CED.1 NJSLS.A.REI.3	Days 34 - 45

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Marking Period 2

Section 5	- Linear Equations - Literal Equations - Linear Inequalities - Applications	NJSLS-A.CED.A.1 NJSLS-A.CED.A.3 NJSLS-A.CED.A.4 NJSLS-A.REI.A.1 NJSLS-A.REI.B.3 NJSLS-A.REI.D.11 NJSLS-N.Q.1	Days 46 - 56
Section 6	- Graphing Linear Equations - Slope-Intercept - Point-Slope - Standard - Applications	NJSLS-A.REI.B.3 NJSLS-A.REI.D.10	Days 57 - 68
Section 7	- Introduction to Polynomials - Adding and Subtracting Polynomials - Multiplying Polynomials - Applications	NJSLS-A.CED.A.1 NJSLS-A.CED.A.3 NJSLS-A.CED.A.4 NJSLS-A.REI.A.1 NJSLS-A.REI.B.3 NJSLS-A.REI.D.11	Days 69 - 80
Section 8	- Introduction to Factoring - Factoring out a GCF - Trinomial Factoring - Solve Equations by Factoring - Applications	NJSLS-A.SSE.B.3 NJSLS-A.CED.A.1 NJSLS-A.REI.B.4.b	Days 81 - 90

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Marking Period 3

Section 9	- Ratio - Rate - Proportion - Percent Equations - Percent Applications	NJSLS-A.CED.1 NJSLS-A.REI.3	Days 91 -115
Section 10	- Mean, Median, Mode - Samples and Surveys - Circle Graphs, Bar Graphs, Line Graphs - Histograms - Frequency Distribution - Box and Whisker Plots	NJSLS-S.IC.1 NJSLS-S.IC.3 NJSLS-S.MD.6 NJSLS-S.ID.1 NJSLS-S.ID.2 NJSLS-S.ID.3 NJSLS-S.ID.5	Days 116 - 135

Marking Period 4

Section 11	- Identify Points, Lines, and Planes - Use Segments & Congruence - Use Midpoint & Distance Formulas - Measure & Classify Angles - Describe Angle Pair Relationships - Applications	NJSLS-G.CO.1 NJSLS-G.CO.7 NJSLS-G.CO.9 NJSLS-G.CO.12 NJSLS-G.GPE.7	Days 136 - 150
Section 12	- Identify Pairs of Lines and Angles - Use Parallel Lines and Transversals	NJSLS-G.CO.1 NJSLS-G.CO.9	Days 151 - 165
Section 13	- Classify Polygons - Perimeter - Area - Circumference - Volume - Surface Area - Applications	NJSLS-G.GMD.1 NJSLS-G.GMD.3 NJSLS-G.GMD.4 NJSLS-G.MG.1 NJSLS-G.MG.3 NJSLS-G.C.5	Days 166 - 180

