INTRO TO COLLEGE MATH SYLLABUS

1ˢᵗ Marking Period

Unit 1 - Whole Numbers

Title	2023 NJSLS for Mathematics
Introduction	4-NBT.A.2, 4-NBT.A.3
Addition	4-NBT.A.4
Subtraction	4-NBT.A.4
Multiplication	4-NBT.A.5 4-OA.A.2
Division	4-NBT.A.6 4-OA.A.2
Exponential Notation and Order of Operations	4-NBT.A.6
Rounding whole numbers	4-NBT.A.2, 4-NBT.A.3

Unit 2 & 3 - Fractions

Title	2023 NJSLS for Mathematics
Multiplication of Fractions and Mixed Numbers	5-NF.B.4a, 5-NF.B.4b
Division of Fractions and Mixed Numbers	5-NF.B.7a, 5-NF.B.7b
Least Common Multiple and Greatest Common Factor	4-NF.A.1, 4-NF.A.2
Writing Equivalent Fractions	3-NF.A.3b 4-NF.A.1
Addition of Fractions and Mixed Numbers	4-NF.B.3a, 4-NF.B.3c 5-NF.A.1
Subtraction of Fractions and Mixed Numbers	4-NF.B.3a, 4-NF.B.3c 5-NF.A.1
Order, Exponents and the Order of Operations Agreement	3-NF.A.3b, 3-NF.A.3d 4-NF.A.2

Unit 4 - Decimals

Title	2023 NJSLS for Mathematics
Addition	5-NBT.B.7
Subtraction	5-NBT.B.7
Multiplication	5-NBT.B.7
Division	5-NBT.B.7
Rounding Decimals	5-NBT.A.4
Comparing and Converting Fractions and Decimals	4-NF.C.6 5-NBT.A.3.b

2nd Marking Period

Unit 5 - Ratio and Proportion

Title	2023 NJSLS for Mathematics
Ratio	6-RP.A.1, 6-RP.A.2
Rate	6-RP.A.3 7-RP.A.1
Proportion	7-RP.A.2a, 7-RP.A.2b

Unit 6 - Percent

Title	2023 NJSLS for Mathematics
Percent Equations	7-RP.A.2c, 7-RP.A.3
Percent Applications	7-RP.A.2c, 7-RP.A.3

Unit 7 - Measurement

Title	2023 NJSLS for Mathematics
English measurement	4-M.A.1, 4-M.A.2, 4-M.A.3
Metric measurement	4-M.A.1, 4-M.A.2, 4-M.A.3
English - metric conversions	4-M.A.2, 4-M.A.3 5-M.A.1

Unit 8 - Data Analysis and Statistics

Title	2023 NJSLS for Mathematics
Mean and Median, Mode	6-SP.A.2, 6-SP.A.3, 6-SP.B.5c 7-SP.A.2, 7-SP.B.3, 7-SP.B.4
Pictographs, Circle graphs, bar graphs, and line graphs	6-SP.B.4
Histograms and Frequency Distribution	6-SP.B.4

Unit 9 - Real Number System

Title	2023 NJSLS for Mathematics
Real numbers and ordering	6-NS.C.5, 6-NS.C.6a, 6-NS.C.6b, 6-NS.C.7a, 6-NS.C.7b 7-NS.A.2d 8-NS.A.1, 8.NS.A.2
Adding real numbers	7-NS.A.1b, 7-NS.A.1d, 7-NS.A.3 7-EE.B.3 8-NS.A.1, 8.NS.A.2, 8-NS.A.3
Subtracting real numbers	7-NS.A.1c, 7-NS.A.1d, 7-NS.A.3 7-EE.B.3 8-NS.A.1, 8.NS.A.2, 8-NS.A.3
Multiplying real numbers	7-NS.A.2a, 7-NS.A.2c, 7-NS.A.3 7-EE.B.3 8-NS.A.1, 8.NS.A.2, 8-NS.A.3
Dividing real numbers and order of operations	7-NS.A.2b, 7-NS.2c, 7-NS.A.2d, 7-NS.A.3 7-EE.B.3 8-NS.A.1, 8.NS.A.2

3ʳᵈ *Marking Period*

Unit 10 - The Language of Algebra

Title	2023 NJSLS for Mathematics
Exponents and Order of Operations	6-EE.A.1, 6-EE.A.2d
Positive and Negative Integers	6-NS.C.5, 6-NS.C.6a, 6-NS.C.6b, 6-NS.C.7a, 6-NS.C.7b
Translation	6-EE.A.1, 6-EE.A.2a, 6-EE.A.2b, 6-EE.B.6 7-EE.A.2, 7-EE.B.3 A-SSE.A.1a
Properties of Signed Numbers	6-NS.C.6a, 6-NS.C.6b, 6-NS.C.7a, 6-NS.C.7b
Add, Subtract, Multiply and Divide Signed Numbers	7-NS.A.1d, 7-NS.A.2c, 7-NS.A.3 7-EE.A.1, 7-EE.B.3
Evaluate Expressions	6-EE.A.2c
Add, Subtract, Multiply and Divide Terms	6-EE.A.3

Unit 11   **Equations and Inequalities**
        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

Title	2023 NJSLS for Mathematics
Solving Linear Equations	A-REI.A.1, A-REI.B.3, A-REI.D.11
Solving Literal Equations	A-CED.A.4
Solving Linear Inequalities	A-REI.A.1, A-REI.B.3
Applications	A-CED.A.1, A-CED.A.2, A-CED.A.

Unit 12 - Polynomials

Title	2023 NJSLS for Mathematics
Extending the Properties of Exponents	8-EE.A.1
Introduction to Polynomials	A-APR.A.1 A-SSE.A.1
Adding and Subtracting Polynomials	A-APR.A.1
Multiplying Polynomials	A-APR.A.1
Special Products	A-APR.A.1, A-APR.C.5
Dividing Polynomials (exclude long division)	A-APR.A.1

Unit 13 - Factoring

Title	2023 NJSLS for Mathematics
Factoring - An Introduction	A-APR.B.3 A-SSE.A.2, A-SSE.B.3a
Factoring out a GCF	A-APR.B.3 A-SSE.A.2, A-SSE.B.3a
Factor by grouping	A-APR.B.3 A-SSE.A.2, A-SSE.B.3a
Difference of Squares	A-APR.B.3 A-SSE.A.2, A-SSE.B.3a
Factor Trinomials	A-APR.B.3 A-SSE.A.2, A-SSE.B.3a
Solving Equations by Factoring	A-APR.B.3 A-SSE.A.2, A-SSE.B.3a F-IF.C.8a

4th *Marking Period*

Unit 14 - Algebraic Fractions

Title	2023 NJSLS for Mathematics
Writing Algebraic Fractions in Simplest Form	A-SSE.A.2 A-APR.D.6, A-APR.D.7
Adding and Subtracting Like Fractions	A-SSE.A.2 A-APR.D.6, A-APR.D.7
Adding and Subtracting Unlike Fractions	A-SSE.A.2 A-APR.D.6, A-APR.D.7
Multiplying and Dividing Algebraic Fractions	A-SSE.A.2 A-APR.D.6, A-APR.D.7
Equations Involving Fractions	A-SSE.A.2 A-REI.A.2

Unit 15 - Graphing Linear Equations

Title	2023 NJSLS for Mathematics
Solutions of Equations in Two Variables	A-REI.D.10
The Rectangular Coordinate System	6-EE.C.6b
Graphing Linear Equations	A-REI.D.10 F-IF.B.6, F-IF.C.7a

Unit 16 - Introduction to Functions

Title	2023 NJSLS for Mathematics
Evaluate an Expression	8-EE.A.1,
Evaluate a Function	6-EE.A.2c 8-F.A.1 F-IF.A.1, F-IF.A.2
Express the Equation of a Line as a Linear Function	F-BF.A.1a

Unit 17 - Systems of Linear Equations

Title	2023 NJSLS for Mathematics
Solving by Graphing	8-EE.C.7a, 8-EE.C.8a
Solving using the Elimination Method	A-REI.C.5, A-REI.C.6
Solving by Substitution	8-EE.C.8b A-REI.C.5, A-REI.C.6
Applications	8-EE.C.8b, 8-EE.C.8c A-REI.C.5, A-REI.C.6

Unit 18 - Exponents and Radicals

Title	2023 NJSLS for Mathematics
Roots and Radicals (limited to an index 2)	N-RN.A.1, N-RN.A.2
Simplifying Radical Expressions	N-RN.A.3
Adding and Subtracting Radicals	N-RN.A.3
Multiplying Radicals	N-RN.A.3

Course Expectations and Skills

- Students are required to have proficiency in all prerequisite topics for Algebra 1. Those who do not demonstrate proficiency will be required to seek additional help after school to close their achievement gap in order to be successful in this course.
- Students are required to take notes in Cornell Notes format and maintain those notes in a neat and organized notebook.
- Students are required to participate in both small and large group discussions and activities, as directed.
- Students are required to complete a project each marking period, including those which require the use of technology.

Resources

Text Book: *Basic Skills Math,* August Treff and Donald Jacobs
                              Algebra 1, Holt McDougal

Supplemental Materials: Algebra 1 Practice Workbook
                              Kuta Software
                              Boardworks Interactive PowerPoint Software

Grading Policy

Department of Mathematics - Intro to College Math

Introduction to College Math		
Category	**Percentage**	**Types of Assignments**
Major	50%	• Summative Assessments • Large Project-based assessments
Minor	30%	• Formative Assessments (Quiz, Warm/up, Closure, etc…) • Smaller Project-based assessments
Homework, Participation & Practice	20%	• Homework assignments • Classwork assignments • Class participation and readiness