NORTHFIELD COMMUNITY SCHOOL
MATHEMATICS CURRICULUM FRAMEWORK
BOE APPROVED AUGUST 2024

GRADE : Grade 6

PACING

Year Curriculum Map 6th Grade Mathematics

PACING	SEPT-OCT 4 weeks	OCT-NOV 5 weeks	NOV-DEC 4 weeks	JAN 3 weeks	JAN-FEB 4 weeks	FEB 3 weeks	MARCH 5 weeks	APRIL 3 weeks	MAY 5 weeks	JUNE 3 weeks
TOPIC	Numerical Expressions and Factors	Fractions and Decimals	Algebraic Expressions and Properties	Areas of Polygons	Ratios and Rates	Integers and the Coordinate Plane	Equations and Inequalities	Surface Area and Volume	Statistical Measures	Data Displays
NJSLA Domain	6.NS Number System 6.EE Expressions & Equations	6.NS Number System	6.EE Expressions & Equations 6.NS Number System	6.G Geometry	6.RP Ratios and Proportional Thinking	6.NS Number System	6.EE Expressions & Equations 6.RP Ratios and Proportional Thinking	6.G Geometry	6.SP Statistics & Probability	6.SP Statistics & Probability
District Assessments	MAP – Fall, Winter, Spring Fluency Test and Constructed Response 2-3 times per year, Fall, Winter (optional), Spring Lesson quizzes - Pre-Assessment and Skill Assessment (Form A or B), teacher made quizzes, modified quizzes Unit Test Assessments- Big Ideas Math Assessments, modified tests, teacher made tests NJSLA Spring									
Mathematical Practices	MP1. Make sense of problems and persevere in solving them. MP2. Reason abstractly and quantitatively. MP3. Construct viable arguments and critique the reasoning of others. MP4. Model with Mathematics. MP5. Use appropriate tools strategically. MP6. Attend to precision. MP7. Look for and make use of structure MP8. Look for and express regularity in repeated reasoning.									

NJSLS Technology	8.1.8.A.1, 8.1.8.D.4	8.1.8.A.1, 8.1.8.D.4	8.1.8.A.1	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.D.4	8.1.8.A.1	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4
NJSLS Career Readiness Practices	CRP2, CRP4, CRP8, CRP11	CRP2, CRP4, CRP8, CRP11	CRP2.,CRP4. CRP.8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP8, CRP11	CRP2.,CRP4. CRP.8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8
9.1 Personal Financial Literacy Standards	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G

GRADE : Grade 6 Advanced

PACING

Year Curriculum Map 6th Grade Advanced Mathematics

PACING	SEPT-OCT 3 weeks	OCT 3 weeks	OCT-NOV 4 weeks	NOV 4 weeks	DEC 3 weeks	JAN 2 weeks	JAN-FEB 3 weeks	FEB 3 weeks	FEB-MAR 3 weeks	MARCH 2 weeks	APRIL 2 weeks	APRIL 3 weeks	MAY 3 weeks	MAY 3 weeks	JUNE 2 weeks
Topic	Numerical Expressions and Factors	Fractions and Decimals	Algebraic Expressions and Properties	Areas of Polygons	Ratios and Rates	Integers and the Coordinate Plane	Equations and Inequalities	Surface Area and Volume	Statistical Measures	Data Displays	Integers	Rational Numbers	Expressions and Equations	Ratios and Proportions	Percents
NJSLA Domain	6.NS Number System 6.EE Expressions and Equations	6.NS Number System	6.EE Expressions and Equations 6.NS Number System	6.G Geometry	6.RP Ratios and Proportional Thinking	6.NS Number System	6.EE Expressions and Equations 6.RP Ratios and Proportional Thinking	6.G Geometry	6.SP Statistics & Probability	6.SP Statistics & Probability	7.NS Rational Number System	7.NS Rational Number System	7.EE Expressions, Equations and Inequalities	7.RP Proportions and Percents	7.EE Expressions, Equations and Inequalities 7.RP Proportions and

															Percents
District Assessments	MAP – Fall, Winter, Spring Fluency Test and Constructed Response 2-3 times per year, Fall, Winter (optional), Spring Lesson quizzes - Pre-Assessment and Skill Assessment (Form A or B), teacher made quizzes, modified quizzes Unit Test Assessments- Big Ideas Math Assessments, modified tests, teacher made tests NJSLA Spring														
Mathematical Practices	MP1. Make sense of problems and persevere in solving them. MP2. Reason abstractly and quantitatively. MP3. Construct viable arguments and critique the reasoning of others. MP4. Model with Mathematics. MP5. Use appropriate tools strategically. MP6. Attend to precision. MP7. Look for and make use of structure MP8. Look for and express regularity in repeated reasoning.														
NJSLS Technology	8.1.8.A.1,8.1.8.A.4	8.1.8.A.1,8.1.8.A.4	8.1.8.A.1	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1,8.1.8.A.4	8.1.8.A.1, 8.1.8.A.4	8.1.8.A.1	8.1.8.A.1	8.1.8.A.1,8.1.8.A.4
NJSLS Career Readiness Practices	CRP2, CRP4, CRP8, CRP11	CRP2, CRP4, CRP8, CRP11	CRP2.,CRP4.CRP.8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP8, CRP11	CRP2.,CRP4.CRP.8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8	CRP2.,CRP4.CRP.8	CRP2, CRP4, CRP7, CRP8	CRP2, CRP4, CRP7, CRP8
9.1 Personal Financial Literacy Standards	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G

*Advanced 6th grade math Chapters 11-15 content specific information can be found in 7th grade Chapters 1-5

<u>Mathematics in Grade 6, instructional time should focus on four critical areas</u>:
(1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems;
(2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers;
(3) writing, interpreting, and using expressions and equations; and
(4) developing understanding of statistical thinking.

(1) Students use reasoning about multiplication and division to solve ratio and rate problems about quantities. By viewing equivalent ratios and rates as deriving from, and extending, pairs of rows (or columns) in the multiplication table, and by analyzing simple drawings that

indicate the relative size of quantities, students connect their understanding of multiplication and division with ratios and rates. Thus students expand the scope of problems for which they can use multiplication and division to solve problems, and they connect ratios and fractions. Students solve a wide variety of problems involving ratios and rates.
(2) Students use the meaning of fractions, the meanings of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense. Students use these operations to solve problems. Students extend their previous understandings of number and the ordering of numbers to the full system of rational numbers, which includes negative rational numbers, and in particular negative integers. They reason about the order and absolute value of rational numbers and about the location of points in all four quadrants of the coordinate plane.
(3) Students understand the use of variables in mathematical expressions. They write expressions and equations that correspond to given situations, evaluate expressions, and use expressions and formulas to solve problems. Students understand that expressions in different forms can be equivalent, and they use the properties of operations to rewrite expressions in equivalent forms. Students know that the solutions of an equation are the values of the variables that make the equation true. Students use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations. Students construct and analyze tables, such as tables of quantities that are in equivalent ratios, and they use equations (such as $3x = y$) to describe relationships between quantities.
(4) Building on and reinforcing their understanding of number, students begin to develop their ability to think statistically. Students recognize that a data New Jersey Student Learning Standards for Mathematics 40 distribution may not have a definite center and that different ways to measure center yield different values. The median measures center in the sense that it is roughly the middle value. The mean measures center in the sense that it is the value that each data point would take on if the total of the data values were redistributed equally, and also in the sense that it is a balance point. Students recognize that a measure of variability (interquartile range or mean absolute deviation) can also be useful for summarizing data because two very different sets of data can have the same mean and median yet be distinguished by their variability. Students learn to describe and summarize numerical data sets, identifying clusters, peaks, gaps, and symmetry, considering the context in which the data were collected. Students in Grade 6 also build on their work with area in elementary school by reasoning about relationships among shapes to determine area, surface area, and volume. They find areas of right triangles, other triangles, and special quadrilaterals by decomposing these shapes, rearranging or removing pieces, and relating the shapes to rectangles. Using these methods, students discuss, develop, and justify formulas for areas of triangles and parallelograms. Students find areas of polygons and surface areas of prisms and pyramids by decomposing them into pieces whose area they can determine. They reason about right rectangular prisms with fractional side lengths to extend formulas for the volume of a right rectangular prism to fractional side lengths. They prepare for work on scale drawings and constructions in Grade 7 by drawing polygons in the coordinate plane.

GRADE 6 OVERVIEW:

Ratios and Proportional Relationships

- Understand ratio concepts and use ratio reasoning to solve problems.

The Number System

- Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

- Compute fluently with multi-digit numbers and find common factors and multiples.
- Apply and extend previous understandings of numbers to the system of rational numbers.

Expressions and Equations

- Apply and extend previous understandings of arithmetic to algebraic expressions.
- Reason about and solve one-variable equations and inequalities.
- Represent and analyze quantitative relationships between dependent and independent variables.

Geometry

- Solve real-world and mathematical problems involving area, surface area, and volume.

Statistics and Probability

- Develop understanding of statistical variability.
- Summarize and describe distributions

Mathematical Practices:

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

Social Emotional Learning (SEL) in MATHEMATICS:

Provide students with opportunities to express themselves through discussions that connect to each topic and allow them to explore their feelings about math. Thinking deeply about each topic will help students apply problem solving and critical thinking strategies that will help them reflect on their work and overall performance as well as confidence in mathematics.

- What parts of math make you feel successful?
- What can we learn from our mistakes?
- What self-talk can you use to help you persevere?
- What are positive ways to respond when math starts to feel challenging?
- What can friends say to help us feel better and more successful in math?
- What can we learn from our mistakes in math?
- How can you be a good group member?
- How will you help yourself get “unstuck?”

- Where or when can you use today's math lesson when you are not in school?
- How do we respond if we don't agree with someone's answer or if we know the answer is incorrect?
- How do we feel about solving problems in a different way when asked?
- Did everyone get a fair chance to talk and/or use the manipulatives?

UNIT 1: THE NUMBER SYSTEM		
Unit Summary	**NJSLS Standards**	**Essential Questions**
Use Positive Rational Numbers: -Apply and extend previous understandings of multiplication and division to divide fractions by fractions -Compute fluently multi-digit numbers and find common factors and multiples Integers and Rational Numbers: -Apply and extend previous understandings of numbers to the system of rational numbers	Math: 6.NS.B.3,6.NS.B2,6.NS.A.1 6.NS.C.5,6.NS.C.6a, 6.NS.C.6c,6.NS.C.7a,6.NS.C. 7b, 6.NS.C.7c,6.NS.C.7d,6.NS.C. 6b, 6.NS.C.8, 6.G.A.3	How can you fluently add, subtract, multiply, and divide decimals? How can you multiply and divide fractions? How do you know which operation to choose when solving a real-life problem? How can you use repeated factors in real life situations? What is the effect of inserting parentheses into a numerical expression? Without dividing, how can you tell when a number is divisible by another number?
Learning Goals: Students will be able to fluently ● apply and extend previous understandings of multiplication and division to divide fractions by fractions ● compute with multi-digit numbers and find common factors and multiples ● apply and extend previous understandings of numbers to the system of rational numbers		
Fluency Expectations: Whole number operations, Mixed numbers and fractions, Verbal expressions, Fractions and Decimals and changing fractions to decimals, Division with Decimals, Identifying and plotting ordered pairs in quadrant I		
Modifications and Accommodations (ELL, SE, BSI, G&T, 504): ELL: ● Work toward longer passages as skills in English increase ● Use visuals ● Introduce key vocabulary before lesson		

● Teacher models reading aloud daily
● Provide peer tutoring
● Use of Bilingual Dictionary
● Guided notes and/or scaffold outline for written assignments
● Provide students with English Learner leveled readers.

SE:
● Allow extra time to complete assignments or tests
● Guided notes and/or scaffold outline for written assignments
● Work in a small group
● Allow answers to be given orally or dictated
● Use large print books, Braille, or books on CD (digital text)
● Follow all IEP modifications

BSI:
● Guided notes and/or scaffold outline for written assignments
● Introduce key vocabulary before lesson
● Work in a small group
● Lesson taught again using a differentiated approach
● Allow answers to be given orally or dictated
● Use visuals / Anchor Charts
● Leveled texts according to ability

G&T:
● Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
● Provide options, alternatives and choices to differentiate and broaden the curriculum
● Organize and offer flexible small group learning activities
● Provide whole group enrichment explorations
● Teach cognitive and methodological skills
● Use center, stations, or contracts
● Organize integrated problem-solving simulations
● Propose interest-based extension activities
● Expose students to beyond level texts.

504:
● Follow all the 504 plan modifications
● Text to speech/audio recorded selections
● Amplification system as needed

● Leveled texts according to ability ● Fine motor skill stations embedded in rotation as needed ● Modified or constrained spelling word lists ● Provide anchor charts with high frequency words and phonemic patterns
Vocabulary: annex zeros, compatible numbers, decimal point, estimate, hundredths, place value, tenths, denominator, mixed number numerator, unit fraction, reciprocal, factor, quotient, product, sum, difference, simplify, addends, digit, regroup, dividend, divisor, real numbers, rational numbers, whole numbers, fraction, decimal, improper fraction, Integers, opposites, counting numbers, negative integer, positive integer, absolute value, coordinate plane, ordered pair, quadrant, reflection, y-axis, x- axis, origin, distance, perimeter
Resources: Math textbook, online sites, classroom library, etc

UNIT 2: Expressions and Equations		
Unit Summary	**NJSLS Standards**	**Essential Questions**
-A whole number exponent can be used to represent repeated multiplication of a number. -Any number can be written as its prime factorization. -GCF & LCM -There is an agreed-upon order in which operations are carried out. -Algebraic expressions use variables for unknown quantities. -Algebraic expressions can be simplified using properties. -A solution of an equation is a value that makes the equation true. -An equation is true when the expressions or numbers on both sides of the equal sign have the same value. -Adding, subtracting, multiplying or dividing both sides of an equation by the same number maintains equality. -A problem situation can be represented by an equation with a variable. -Equations are solved by using the inverse operation and a property of equality. -An	Math: 6.EE.A.1, 6.NS.B.4, 6.EE.A.3, 6.EE.A.2a, 6.EE.A.2b, 6.EE.B.6, 6.EE.A.2c, 6.EE.B.6, 6.EE.A.2, 6.EE.B.6, 6.EE.A.4, 6.EE.B.5,6.EE.B.7,6.EE.B. 8, 6.EE.C.9 Technology Standards: 8.1.8.A.1 Career Readiness Practices : CRP2.,CRP4.CRP.8 Financial Literacy Standards: 9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	How can you use a number line to represent solutions of an inequality? How can you use add, subtraction, multiplication or division to solve an inequality? How can you use an inequality to describe the dimensions of a figure? How does rewriting a word problem help you solve the word problems? How can you use addition or subtraction to solve an equation? How can you use multiplication or division to solve an equation? How can you write an equation in two variables? How can you use a number line to represent solutions of an inequality? How can you use addition or subtraction to solve an inequality?

inequality is a mathematical sentence that contains the inequality symbol.		How can you use multiplication or division to solve an inequality?

Learning Goals:

Students will be able to
- Apply and extend previous understanding of arithmetic to algebraic expressions
- Reason about and solve one-variable equations and inequalities
- Represent and analyze quantitative relationships between dependent and independent variables

Fluency Expectations:

Perimeter and Area, Multiples, Factors, Operations, Write and interpret Numerical expressions, Graph points on the coordinate plane, Understanding of algebraic expressions, including evaluating algebraic expressions, generating equivalent expressions, and simplifying algebraic expressions, Graph rational numbers on the coordinate plane

Modifications and Accommodations (ELL, SE, BSI, G&T, 504):

ELL:
- Work toward longer passages as skills in English increase
- Use visuals
- Introduce key vocabulary before lesson
- Teacher models reading aloud daily
- Provide peer tutoring
- Use of Bilingual Dictionary
- Guided notes and/or scaffold outline for written assignments
- Provide students with English Learner leveled readers.

SE:
- Allow extra time to complete assignments or tests
- Guided notes and/or scaffold outline for written assignments
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications

BSI:
- Guided notes and/or scaffold outline for written assignments
- Introduce key vocabulary before lesson
- Work in a small group

● Lesson taught again using a differentiated approach
● Allow answers to be given orally or dictated
● Use visuals / Anchor Charts
● Leveled texts according to ability

G&T:
● Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
● Provide options, alternatives and choices to differentiate and broaden the curriculum
● Organize and offer flexible small group learning activities
● Provide whole group enrichment explorations
● Teach cognitive and methodological skills
● Use center, stations, or contracts
● Organize integrated problem-solving simulations
● Propose interest-based extension activities
● Expose students to beyond level texts.

504:
● Follow all the 504 plan modifications
● Text to speech/audio recorded selections
● Amplification system as needed
● Leveled texts according to ability
● Fine motor skill stations embedded in rotation as needed
● Modified or constrained spelling word lists
● Provide anchor charts with high frequency words and phonemic patterns

Vocabulary: Expression, Numeric expressions, Algebraic expressions, Power, Exponent, Base, Factor, Evaluate , Composite numbers, multiples, Prime Factorization, GCF, LCM, Prime number, Factor tree, distributive property, Terms, coefficient, variable, order of operations, substitution , like terms, commutative property, coefficient, equation, evaluate, variable, Addition property of equality, subtraction property of equality, multiplication property of equality, division property of equality, solution, inverse, inequality, independent variable, dependant variable, numerical expression

Resources:
Math textbook, online sites, classroom library, etc

UNIT 3: Ratios, Percents & Proportional Relationships

Unit Summary	NJSLS Standards	Essential Questions
-Work with ratios, rates, unit rates, and percents. -Convert measurement units. -Find percent of a number. -Solve real-life and mathematical problems involving percents.	Math: 6.RP.A.1, 6.RP.A.2, 6.RP.A.3, 6.RP.A.3a, 6.RP.A.3b, 6.RP.A.3c, 6.RP.A.3d Technology Standards: 8.1.8.A.1, 8.1.8.A.4 Career Readiness Practices: CRP2, CRP4, CRP7, CRP8 Financial Literacy: 9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	What are ratios and rates? How can you use ratios and rates to describe quantities and solve problems? How can you find two ratios that describe the same relationship? How can you use rates to describe changes in real-life problems? How can you compare two ratios? How can you compare lengths between the customary and metric systems? What is the meaning of percent? How can percent be estimated and found? What is the connection between ratios, fractions, and percents? How can you use mental math to find the percent of a number?

Learning Goals:

Students will be able to
- Work with ratios, rates, unit rates and percents.
- Convert measurement units.
- Find percent of a number.
- Solve real-life and mathematical problems involving percents.

Fluency Expectations:

Analyze patterns and relationships. Use models to represent fractional relationships. Understand four quadrants of a coordinate plane. Graph equations using a table of values. Convert standard measurement units within the same measurement system. Explain patterns in the placement of the decimal point when multiplying or dividing a decimal by a power of 10. Use equivalent fractions to add and subtract fractions and mixed numbers. Use rounding and compatible numbers to estimate. Use models, number sense and properties to multiply decimals. Multiply whole numbers and decimals in the same way that students multiply whole numbers and then place the decimal point in the product. Understand algebraic expressions and generate equivalent algebraic expressions. Use patterns to write and solve equations. Write and solve multiplication and division equations.

Modifications and Accommodations (ELL, SE, BSI, G&T, 504):

ELL:
- Work toward longer passages as skills in English increase
- Use visuals
- Introduce key vocabulary before lesson
- Teacher models reading aloud daily
- Provide peer tutoring
- Use of Bilingual Dictionary
- Guided notes and/or scaffold outline for written assignments
- Provide students with English Learner leveled readers.

SE:
- Allow extra time to complete assignments or tests
- Guided notes and/or scaffold outline for written assignments
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications

BSI:
- Guided notes and/or scaffold outline for written assignments
- Introduce key vocabulary before lesson
- Work in a small group
- Lesson taught again using a differentiated approach
- Allow answers to be given orally or dictated
- Use visuals / Anchor Charts
- Leveled texts according to ability

G&T:
- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Organize and offer flexible small group learning activities
- Provide whole group enrichment explorations
- Teach cognitive and methodological skills
- Use center, stations, or contracts
- Organize integrated problem-solving simulations
- Propose interest-based extension activities
- Expose students to beyond level texts.

504:
- Follow all the 504 plan modifications
- Text to speech/audio recorded selections
- Amplification system as needed
- Leveled texts according to ability
- Fine motor skill stations embedded in rotation as needed
- Modified or constrained spelling word lists
- Provide anchor charts with high frequency words and phonemic patterns

Vocabulary:
ratio, ratio table, equivalent rate, unit rate, U.S. Customary system, metric system, conversion factor, unit analysis and percent.

Resources:
Math textbook, online sites, classroom library, etc

UNIT 4: Solve Area, Surface Area, Volume		
Unit Summary	**NJSLS Standards**	**Essential Questions**
Students will be able to: -The formula for the area of a parallelogram, A=bh, can be derived from the formula for the area of a rectangle. -The formula for the area of a triangle, A=1/2bh, can be derived from the formula for the area of a parallelogram. -The areas of trapezoids and kites can be found by decomposing the trapezoids and kites into shapes for which the area formulas are known. -The areas of polygons, including polygons on the coordinate plane, can be found by composing or decomposing the polygons into shapes for which the area formulas are known. -A solid figure can be classified based on the number of bases, the	Math: 6.EE.A.2, 6.EE.A.2a, 6.EE.A.2c, 6.EE.B.6, 6.G.A.1, 6.G.A.3, 6.G.A.4, 6.NS.C.6c, 6.NS.C.8 Technology Standards: 8.1.8.A.1, 8.1.8.A.4 Career Readiness Practices: CRP2, CRP4, CRP7, CRP8 Financial Literacy Standards: 9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	How can the areas of certain shapes be found? What are the meanings of surface area and volume, and how can surface area and volume be found?

shape of the base(s), and the shape of the other faces. A net can be used to represent a polyhedron. -The surface area of a prism or a pyramid is the sum of the areas of its faces. -Unit cubes or formulas can be used to find the volume of rectangular prisms, including cubes. -Many real-world problem situations can be represented with a mathematical model, but that model may not represent the situations		

Fluency Expectations: Multiply mixed numbers. Identify polygons, especially quadrilaterals, trapezoids, parallelograms, rectangles, rhombuses and squares. Classify two-dimensional figures into categories based on the figures' properties. Represent polygons on the coordinate plane. Apply the formula for the area of a rectangle to solve problems. Apply steps to solve multiplication and division equations Solve real-world and mathematical problems by writing and solving equations. Find volumes of prisms with whole-number edge lengths by using unit cubes and formulas. Add, subtract, multiply and divide decimals, including dividing whole numbers and decimals.

Modifications and Accommodations (ELL, SE, BSI, G&T, 504):

ELL:
- Work toward longer passages as skills in English increase
- Use visuals
- Introduce key vocabulary before lesson
- Teacher models reading aloud daily
- Provide peer tutoring
- Use of Bilingual Dictionary
- Guided notes and/or scaffold outline for written assignments
- Provide students with English Learner leveled readers.

SE:
- Allow extra time to complete assignments or tests
- Guided notes and/or scaffold outline for written assignments
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications

BSI:

● Guided notes and/or scaffold outline for written assignments
● Introduce key vocabulary before lesson
● Work in a small group
● Lesson taught again using a differentiated approach
● Allow answers to be given orally or dictated
● Use visuals / Anchor Charts
● Leveled texts according to ability

G&T:
● Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
● Provide options, alternatives and choices to differentiate and broaden the curriculum
● Organize and offer flexible small group learning activities
● Provide whole group enrichment explorations
● Teach cognitive and methodological skills
● Use center, stations, or contracts
● Organize integrated problem-solving simulations
● Propose interest-based extension activities
● Expose students to beyond level texts.

504:
● Follow all the 504 plan modifications
● Text to speech/audio recorded selections
● Amplification system as needed
● Leveled texts according to ability
● Fine motor skill stations embedded in rotation as needed
● Modified or constrained spelling word lists
● Provide anchor charts with high frequency words and phonemic patterns

Vocabulary: parallelogram, rhombus, rectangle, square, kite, base, edge, face, net, polyhedron, vertex, area, surface area, volume.

Resources:
Math textbook, online sites, classroom library, etc

UNIT 5: Statistics & Probability

Unit Summary	NJSLS Standards	Essential Questions
A statistical question anticipates variability in responses and can be answered by collecting and analyzing data. -A set of numerical data collected to answer a statistical question has a distribution described by its center, spread and overall shape. -The mean, median and mode are measures of the center of a data set. -The range, interquartile range (IQR) and mean absolute deviation (MAD) are measures of variability. Measures of variability describe the spread and clustering of data. -Different measures of center and variability best describe different data sets. -A box plot displays the distribution of numerical data values on a number line. -A frequency table or histogram organizes data values into equal intervals. -Many real-world problem situations can be represented with a mathematical model, but that model may not represent the situations exactly.	Math: 6.SP.A.1, 6.SP.A.2, 6.SP.A.3, 6.SP.B.4, 6.SP.B.5, 6.SP.B.5a, 6.SP.B.5b, 6.SP.B.5c, 6.SP.B.5d Technology Standards: 8.1.8.A.1, 8.1.8.A.4 Career Readiness Practices: CRP2, CRP4, CRP7, CRP8 Financial Literacy Standards: 9.1.8.A 9.1.8.B 9.1.8.C 9.1.8.D 9.1.8.E 9.1.8.G	How can data be described by a single number? How can tables and graphs be used to represent data and to answer questions?

Learning Goals:

Students will be able to

- Display, describe and summarize data.

Fluency Expectations:

Solve real-world and mathematical problems by writing and solving equations. Use line plots to represent and interpret numerical data. Recognize and analyze quantitative relationships between dependent and independent variables. Add, subtract, multiply and divide decimals, including dividing whole numbers and decimals. Understand and represent rational numbers on the number line.

Modifications and Accommodations (ELL, SE, BSI, G&T, 504):

ELL:

● Work toward longer passages as skills in English increase
● Use visuals
● Introduce key vocabulary before lesson
● Teacher models reading aloud daily
● Provide peer tutoring
● Use of Bilingual Dictionary
● Guided notes and/or scaffold outline for written assignments
● Provide students with English Learner leveled readers.

SE:
● Allow extra time to complete assignments or tests
● Guided notes and/or scaffold outline for written assignments
● Work in a small group
● Allow answers to be given orally or dictated
● Use large print books, Braille, or books on CD (digital text)
● Follow all IEP modifications

BSI:
● Guided notes and/or scaffold outline for written assignments
● Introduce key vocabulary before lesson
● Work in a small group
● Lesson taught again using a differentiated approach
● Allow answers to be given orally or dictated
● Use visuals / Anchor Charts
● Leveled texts according to ability

G&T:
● Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
● Provide options, alternatives and choices to differentiate and broaden the curriculum
● Organize and offer flexible small group learning activities
● Provide whole group enrichment explorations
● Teach cognitive and methodological skills
● Use center, stations, or contracts
● Organize integrated problem-solving simulations
● Propose interest-based extension activities
● Expose students to beyond level texts.

504:

- Follow all the 504 plan modifications
- Text to speech/audio recorded selections
- Amplification system as needed
- Leveled texts according to ability
- Fine motor skill stations embedded in rotation as needed
- Modified or constrained spelling word lists
- Provide anchor charts with high frequency words and phonemic patterns

Vocabulary: statistical question, mean, median, mode, range, interquartile range (IQR), absolute deviation, mean absolute deviation (MAD), outlier, five-number summary, box plot, quartiles, frequency table, data distribution, histogram.

Resources:
Math textbook, online sites, classroom library, etc