Grade: 6	Course: Math
Pacing: 6 weeks	
Unit: 1 - The Number System	**Big Idea:** **Chapter 1 - Whole Numbers and Decimals** **Chapter 2 - Fractions** **Chapter 3 - Rational Numbers**
Content Area NJSLS Performance Expectations Addressed	*Interdisciplinary Connections*
6.NS.A.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?* 6.NS.B.2 With accuracy and efficiency, divide multi-digit numbers using the standard algorithm. 6.NS.B.3 With accuracy and efficiency, add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. 6.NS.B.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4(9 + 2).* 6.NS.C.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values	**English Language Arts** - RI.MF.6.6. Integrate information when presented in different media or formats (e.g., visually, quantitatively) to develop a coherent understanding of a topic or issue. - W.RW.6.7. Write routinely over extended time frames (time for research, reflection, metacognition/self-correction, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. - SL.PE.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. **Science** - MS-PS1-4 Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

(e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
- 6.NS.C.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
  a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., -(-3) = 3, and that 0 is its own opposite.
  b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
  c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
- 6.NS.C.7 Understand ordering and absolute value of rational numbers.
  a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret -3 > -7 as a statement that -3 is located to the right of on a number line oriented from left to right.*
  b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write -3℃ > -7℃ to express the fact that -3℃ is warmer than -7℃.*
  c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of*

-30 dollars, write |-30| = 30 to describe the size of the debt in dollars.

    d. Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.*

Standards for Mathematical Practice
- MP.2 Reason abstractly and quantitatively.
- 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.

Computer Science and Design Thinking	*Career Readiness, Life Literacies, and Key Skills*
8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose. 8.1.8.AP.6: Refine a solution that meets users' needs by incorporating feedback from team members and users.	**21st Century Skills** 9.4.8.CT.2: Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal. **Technology** 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys. **Career Readiness, Life Literacies, and Key Skills Practices:** - Demonstrate creativity and innovation. - Use technology to enhance productivity, increase collaboration and communicate effectively.

Student Learning Objectives (SLO)
Students will be able to…

- divide a fraction by a fraction.
- represent division of fractions using visual models.
- interpret quotients of fractions in the context of the problem.
- compute quotients of fractions in order to solve word problems.
- write equations to solve word problems involving division of fraction by a fraction.
- use the relationship between multiplication and division to explain division of fractions.
- use the standard algorithm to divide multi-digit numbers with speed and accuracy.
- describe a ratio relationship between two quantities using ratio language.
- determine the unit rate given a ratio relationship.
- describe a unit rate relationship between two quantities using rate language.
- use ratio and rate reasoning to create tables of equivalent ratios relating quantities with *whole number* measurements, find missing values in tables and plot pairs of values.
- compare ratios using tables of equivalent ratios.
- solve real world and mathematical problems involving unit rate (including unit price and constant speed).
- calculate a percent of a quantity and solve problems by finding the whole when given the part and the percent.
- convert measurement units using ratio reasoning.
- transform units appropriately when multiplying and dividing quantities.
- add and subtract multi-digit decimals with accuracy and efficiency.
- multiply and divide multi-digit decimals with accuracy and efficiency.
- create lists of factors for two whole numbers less than or equal to 100; find the largest factor common to both lists.
- create lists of multiples for two whole numbers less than or equal to 12; find the smallest multiple common to both lists.

Academic Vocabulary

Quotient, Fraction, Divisor, Dividend, Ratio, Unit rate, Equivalent, Factor, Multiple, Greatest common factor, Least common multiple, Percent, Product, Sum, Difference

Essential Questions	Enduring Understandings
- How do you divide multi-digit numbers? - How do you write the prime factorization of a number? - How can you find the least common multiple of two whole numbers?	Understanding division helps break large numbers into smaller, equal parts and solve real-world problems efficiently.

- How can you find the greatest common factor of two whole numbers?
- How can you use the strategy draw a diagram to help you solve problems involving the GCF and the Distributive Property?
- How do you add and subtract multi-digit decimals?
- How do you multiply multi-digit decimals?
- How do you divide decimals by whole numbers?
- How do you divide whole numbers and decimals by decimals?
- How can you convert between fractions and decimals?
- How can you compare and order fractions and decimals?
- How do you multiply fractions?
- How do you simplify fractional factors by using the greatest common factor?
- How can you use a model to show division of fractions?
- How can you use compatible numbers to estimate quotients of fractions and mixed numbers?
- How do you divide fractions?
- How can you use a model to show division of mixed numbers?
- How do you divide mixed numbers?
- How can you use the strategy use a model to help you solve a division problem?
- How can you use positive and negative numbers to represent real-world quantities?
- How can you compare and order integers?
- How can you plot rational numbers on a number line?
- How can you compare and order rational numbers?
- How can you find and interpret the absolute value of rational numbers?
- How can you interpret comparisons involving absolute values?
- How do you plot ordered pairs of rational numbers on a coordinate plane?
- How can you identify the relationship between points on a coordinate plane?
- How can you find the distance between two points that lie on a horizontal or vertical line on a coordinate plane?

- Every number can be broken down into prime factors, which helps us understand number relationships and solve problems with GCF and LCM.
- LCM helps us find when different repeating events or quantities match up, especially in real-life situations.
- GCF helps us split things into equal parts and simplify problems involving shared factors.
- Drawing diagrams can make it easier to see patterns, relationships, and how to apply the Distributive Property in problem-solving.
- Understanding place value helps us accurately add and subtract decimals in everyday contexts.
- Multiplying decimals helps us solve problems with money, measurement, and more by understanding place value and patterns.
- Dividing decimals by whole numbers allows us to fairly share quantities and solve practical problems.
- Fractions and decimals are two ways to show parts of a whole, and knowing both helps us solve real-world math problems.
- Comparing numbers helps us make decisions and understand size, value, and order.
- Multiplying fractions shows how parts of a whole can grow or combine in everyday situations.
- Simplifying fractions using GCF helps make numbers easier to work with and understand.
- Models help us see how many times a fraction fits into another, which makes division clearer.
- Estimating with friendly numbers gives us a quick idea of what an answer should be.
- Dividing fractions shows how to break parts into smaller parts, which is useful in cooking, building, and problem-solving.
- Models make it easier to see and understand how we divide whole numbers and fractions together.

● How can you use the strategy draw a diagram to help you solve a problem on the coordinate plane?	● Dividing mixed numbers helps solve problems that include both whole numbers and fractions. ● Models make complex problems easier by showing how division works step by step ● Positive and negative numbers help describe real-life situations like temperature, elevation, and money. ● Comparing integers helps us understand differences in values and direction, especially with gains and losses. ● Number lines help us see the size and order of numbers, including fractions and negatives. ● Rational numbers can be compared by understanding their distance from zero and place on the number line. ● Absolute value tells us how far a number is from zero, which helps us understand size without worrying about direction. ● Comparing absolute values helps us understand situations where only the amount matters, not the direction. ● The coordinate plane helps us show and describe locations using two numbers. ● Looking at patterns between points helps us understand relationships and changes in position. ● Finding distances helps us measure and describe space between points accurately.
Core Instruction/Supplemental Materials	*Assessments*
● Go Math digital resources on HMH platform ● Interactive Student Journal ● Student Journal from Go Math ● Reteach and Enrich resources from Go Math ● Vocabulary Cards ● "Math on the Spot" videos through HMH Go Math ● iTools from HMH Go Math ● HMH Go Math Supplemental Slides ● Math Readers from Go Math ● Boddle Math ● SumDog	**Formative** ● Oral assessment ● Exit tickets ● Quizzes ● Journals ● Graphic Organizers ● Class discussion ● Interactive online games ● Teacher observation ● Classwork Practice ● Discussion Trifolds

- Prodigy
- Kahoot
- Quizizz
- Kahn Academy
- iReady Learning Path and Lessons materials
- Newspaper hunt to find numbers at least 6 digits long to write in each form
- Find estimated amounts in new stories, on the Internet, in newspapers, or magazines
- Round multidigit numbers to specific place values in a Rounding Rodeo
- View Math Antics videos for rounding, division, and multiplication
- Play Round and Roll game
- Play Rounding Numbers Pirate game on MathPlayground.com
- Teacher Created Materials
- 6.NS.A.1 Traffic Jam
- 6.RP.A.1 Games at Recess
- 6.RP.A.2 Price per pound and pounds per dollar
- 6.RP.A.3 Voting for Three, Variation 1
- 6.RP.A.3c Shirt Sale
- 6.NS.B.3 Reasoning about Multiplication and Division and Place Value, Part 1
- 6.NS.B.4 Factors and Common Factors
- 6.NS.B.4 Multiples and Common Multiples
- Amistad Law - Read "Hidden Figures" by Margot Lee Shetterfly and explore mathematical contributions of four influential African American women

- Video logs
- Show What you Know
- Lesson Quick Checks
- Share and Show
- Mid Chapter Checkpoints
- Practice and Homework pages

Summative
- Tests
- Skills assessment/Benchmarks

Alternative
- Centers/activities/games
- Performance assessments
- Projects

Modifications/Differentiated Activities

Enrichment/Gifted and Talented
- Differentiated curriculum for the gifted learner.
- Regular classroom curricula and instruction that is adapted, modified, or replaced.

Multilingual Learners
- Alternate Responses
- Notes in Advance
- Extended Time

- Educational opportunities consisting of a continuum of differentiated curricular options, instructional approaches and materials. - Integrated G&T programming into the general education school day. - Flexible groupings of students to facilitate differentiated instruction and curriculum. Learning Environments: - Extensive outside reading - Active classroom discussion - Innovative oral and written presentations - Deductive and inductive reasoning - Independent writing and research - Divergent thinking - Challenging problem solving situations - Interactive, independent and interdisciplinary activities	- Simplified Instruction (written and verbal) - Online Dictionary - Use lots of visuals - Use physical activity; model, role-play - Repeat/Rephrase often - Use lower level materials when appropriate
Special Education GENERAL MODIFICATIONS: - Allow outlining, instead of writing for an essay or major project - Computerized spell-check support - Word bank of choices for answers to test questions - Provision of calculator and/or number line for math tests - Film or video supplements in place of reading text - Reworded questions in simpler language - Projects instead of written reports - Highlighting important words or phrases in reading assignments - Modified workload or length of assignments/tests - Modified time demands - Pass/no pass option - Modified grades based on IEP BEHAVIOR MODIFICATIONS: - Breaks between tasks - Cue expected behavior - Daily feedback to student - Use de-escalation strategies	**At Risk (Intervention)** - Maximize use of community resources - Connect family to school and school activities - Support through transition - Help develop compensating strategies - Increase opportunity for positive peer group influences - Supplemental courses - Placement in small and interactive groups

- Use positive reinforcement - Use proximity/touch control - Use peer supports and mentoring - Model expected behavior by adults - Have parent sign homework/behavior chart - Set and post class rules - Chart progress and maintain data	

Grade: 6	**Course: Math**
Pacing - 5 weeks	
Unit: 2 - Ratios and Proportional Relationships	**Big Idea:** **Chapter 3 - Ratios and Rates**

	Chapter 4 - Percents **Chapter 5 - Units of Measure**
Content Area NJSLS Performance Expectations Addressed	***Interdisciplinary Connections***
6.RP.A.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."* 6.RP.A.2 Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠0, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is ¾-cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."* (Clarification: Expectations for unit rates in this grade are limited to non-complex fractions.) 6.RP.A.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios relating quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. b. Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?* c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means times the quantity); solve problems involving finding the whole, given a part and the percent.	**English Language Arts** - RI.MF.6.6. Integrate information when presented in different media or formats (e.g., visually, quantitatively) to develop a coherent understanding of a topic or issue. - L.KL.6.2.A. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases. - L.KL.6.2.B. Gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. **Comprehensive Health and Physical Education** 2.2.8.N.4: Assess personal nutritional health and consider opportunities to improve health and performance (e.g., sports drinks, supplements, balance nutrition).

d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Standards for Mathematical Practice
- 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.
- MP.7 Look for and make use of structure.

Computer Science and Design Thinking	*Career Readiness, Life Literacies, and Key Skills*
8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose. 8.1.8.AP.6: Refine a solution that meets users' needs by incorporating feedback from team members and users.	**21st Century Skills** 9.4.8.CT.2: Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal. **Technology** 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys. **Career Readiness, Life Literacies, and Key Skills Practices:** - Demonstrate creativity and innovation. - Use technology to enhance productivity, increase collaboration and communicate effectively.

Student Learning Objectives (SLO)
Students will be able to…   - write numerical expressions (involving whole number exponents) from verbal descriptions.   - evaluate numerical expressions involving whole number exponents.   - write algebraic expressions from verbal descriptions.

- use mathematical terms (sum, term, product, factor, quotient, coefficient) to identify the parts of an expression.
- evaluate algebraic expressions and formulas, including those involving exponents.
- combine like terms to generate an equivalent expression.
- factor to generate an equivalent expression.
- multiply (apply the distributive property) to generate an equivalent expression.
- write expressions for solving real-world problems.
- use ratio and rate reasoning to create tables of equivalent ratios relating quantities with *whole number* measurements, find missing values in tables and plot pairs of values.
- compare ratios using tables of equivalent ratios.
- solve real world and mathematical problems involving unit rate (including unit price and constant speed).
- find surface area of three-dimensional objects using nets.
- solve real world and mathematical problems involving surface area using nets.
- calculate a percent of a quantity and solve problems by finding the whole when given the part and the percent.
- convert measurement units using ratio reasoning.
- transform units appropriately when multiplying and dividing quantities.

Academic Vocabulary

Expression, Evaluate, Term, Coefficient, Distributive property, Like terms, Factor, Variable, Volume, Prism, Edge, Surface area, Net, Two-dimensional, Three-dimensional, Sum, Product, Quotient, Difference

Essential Questions	Enduring Understandings
- How can you model ratios? - How do you write ratios and rates? - How can you use a multiplication table to find equivalent ratios? - How can you use the strategy find a pattern to help you compare ratios? - How can you use tables to solve problems involving equivalent ratios? - How can you use unit rates to make comparisons? - How can you solve problems using unit rates? - How can you use a graph to represent equivalent ratios? - How can you use a model to show a percent?	- Models help us see and understand the relationship between two quantities being compared. - Ratios and rates are ways to compare quantities and can be written using different forms depending on the situation. - Multiplication patterns help us find and understand ratios that express the same relationship. - Recognizing patterns in numbers helps us compare ratios and solve problems more efficiently. - Tables organize information and make it easier to find equivalent ratios and solve problems.

- How can you write percents as fractions and decimals?
- How can you write fractions and decimals as percents?
- How do you find a percent of a quantity?
- How can you use the strategy use a model to help you solve a percent problem?
- How can you find the whole given a part and a percent?
- How can you use ratio reasoning to convert from one unit of length to another?
- How can you use ratio reasoning to convert from one unit of weight or mass to another?
- How can you transform units to solve problems?
- How can you use the strategy use a formula to solve problems involving distance, rate and time?

- Unit rates let us fairly compare different quantities by expressing how much of one thing per one unit of another.
- Using unit rates helps us solve real-world problems like speed, cost, or recipes by comparing amounts per one unit.
- Graphs show relationships between quantities and help us see patterns in equivalent ratios.
- Models help us see percents as parts of a whole, which makes them easier to understand and use.
- Percents, fractions, and decimals all show parts of a whole, and converting between them helps us solve problems.
- Changing fractions and decimals into percents helps us compare quantities in real-world situations like sales or surveys.
- Finding a percent of a number helps solve problems involving discounts, tips, and statistics.
- Models make it easier to understand what the percent represents and how it relates to the whole.
- Knowing a part and the percent allows us to figure out the total amount in real-life situations like budgets or data.
- Using ratios helps us change measurements into different units by comparing known relationships.
- Understanding ratios helps us switch between units like grams to kilograms by using proportional reasoning.
- Changing units allows us to solve problems in a consistent way and compare measurements accurately.
- Formulas help us solve real-world problems by connecting distance, speed, and time in a clear and organized way.

Core Instruction/Supplemental Materials	*Assessments*
- Go Math digital resources on HMH platform - Interactive Student Journal - Student Journal from Go Math - Reteach and Enrich resources from Go Math - Vocabulary Cards "Math on the Spot" videos through HMH Go Math	**Formative** - Oral assessment - Exit tickets - Quizzes - Journals - Graphic Organizers

- iTools from HMH Go Math
- HMH Go Math Supplemental Slides
- Math Readers from Go Math
- Boddle Math
- SumDog
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- Kahoot
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- Newspaper hunt to find numbers at least 6 digits long to write in each form
- Find estimated amounts in new stories, on the Internet, in newspapers, or magazines
- Round multidigit numbers to specific place values in a Rounding Rodeo
- View Math Antics videos for rounding, division, and multiplication
- Play Round and Roll game
- Play Rounding Numbers Pirate game on MathPlayground.com
- Teacher Created Materials
- Teacher Created Materials
- 6.EE.A.1 The Djinni's Offer
- 6.EE.A.2 Rectangle Perimeter 1
- 6.EE.A.4 Rectangle Perimeter 2
- 6.EE.A.4 Equivalent Expressions
- 6.G.A.2 Volumes with Fractional Edge Lengths
- 6.G.A.4 Nets for Pyramids and Prisms
- Holocaust Law - Read and make measurement connections in the book "37 Days at Sea: Aboard the MS St. Louis, 1939" by Barbara Krasner

- Class discussion
- Interactive online games
- Teacher observation
- Classwork Practice
- Discussion Trifolds
- Video logs
- Show What you Know
- Lesson Quick Checks
- Share and Show
- Mid Chapter Checkpoints
- Practice and Homework pages

Summative
- Tests
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Alternative
- Centers/activities/games
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Modifications/Differentiated Activities	
Enrichment/Gifted and Talented	**Multilingual Learners**

- Differentiated curriculum for the gifted learner. - Regular classroom curricula and instruction that is adapted, modified, or replaced. - Educational opportunities consisting of a continuum of differentiated curricular options, instructional approaches and materials. - Integrated G&T programming into the general education school day. - Flexible groupings of students to facilitate differentiated instruction and curriculum. Learning Environments: - Extensive outside reading - Active classroom discussion - Innovative oral and written presentations - Deductive and inductive reasoning - Independent writing and research - Divergent thinking - Challenging problem solving situations - Interactive, independent and interdisciplinary activities	- Alternate Responses - Notes in Advance - Extended Time - Simplified Instruction (written and verbal) - Online Dictionary - Use lots of visuals - Use physical activity; model, role-play - Repeat/Rephrase often - Use lower level materials when appropriate
Special Education GENERAL MODIFICATIONS: - Allow outlining, instead of writing for an essay or major project - Computerized spell-check support - Word bank of choices for answers to test questions - Provision of calculator and/or number line for math tests - Film or video supplements in place of reading text - Reworded questions in simpler language - Projects instead of written reports - Highlighting important words or phrases in reading assignments - Modified workload or length of assignments/tests - Modified time demands - Pass/no pass option - Modified grades based on IEP BEHAVIOR MODIFICATIONS: - Breaks between tasks	**At Risk (Intervention)** - Maximize use of community resources - Connect family to school and school activities - Support through transition - Help develop compensating strategies - Increase opportunity for positive peer group influences - Supplemental courses - Placement in small and interactive groups

- Cue expected behavior - Daily feedback to student - Use de-escalation strategies - Use positive reinforcement - Use proximity/touch control - Use peer supports and mentoring - Model expected behavior by adults - Have parent sign homework/behavior chart - Set and post class rules - Chart progress and maintain data	

Grade: 6	Course: Math
Pacing - 6 weeks	

Unit: 3 - Expressions and Equations	**Big Idea:** **Chapter 7 - Expressions** **Chapter 8 - Equations and Inequalities** **Chapter 9 - Relationships between Variables**
Content Area NJSLS Performance Expectations Addressed	*Interdisciplinary Connections*
6.EE.A.1 Write and evaluate numerical expressions involving whole-number exponents. 6.EE.A.2 Write, read, and evaluate expressions in which letters stand for numbers. a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 - y.* b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2(8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.* c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = 6s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length s = ½.* 6.EE.A.3 Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the*	**English Language Arts** - RI.MF.6.6. Integrate information when presented in different media or formats (e.g., visually, quantitatively) to develop a coherent understanding of a topic or issue. - W.RW.6.7. Write routinely over extended time frames (time for research, reflection, metacognition/self-correction, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. - SL.PE.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. **Science** - MS-PS2-3 Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.

expression *3(2 + x)* to produce the equivalent expression *6 + 3x;*
apply the distributive property to the expression 24x + 18y to
produce the equivalent expression 6(4x + 3y); apply properties of
operations to y + y + y to produce the equivalent expression 3y.
- 6.EE.A.4 Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y+ y and 3y are equivalent because they name the same number regardless of which number y stands for.*
- 6.EE.B.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
- 6.EE.B.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- 6.EE.B.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
- 6.EE.B.8 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
- 6.EE.C.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

Standards for Mathematical Practice
- MP.1 Make sense of problems and persevere in solving them.

- MP.2 Reason abstractly and quantitatively.
- MP.3 Construct viable arguments and 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.

Computer Science and Design Thinking	Career Readiness, Life Literacies, and Key Skills
8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose. 8.1.8.AP.6: Refine a solution that meets users' needs by incorporating feedback from team members and users.	**21st Century Skills** 9.4.8.CT.2: Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal. **Technology** 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys. **Career Readiness, Life Literacies, and Key Skills Practices:** - Demonstrate creativity and innovation. - Use technology to enhance productivity, increase collaboration and communicate effectively.

Student Learning Objectives (SLO)

Students will be able to…
- substitute a number into an equation to determine whether it makes an equation true.
- substitute a number into an inequality to determine whether it makes the inequality true.
- solve real world problems by writing and solving equations of the form $x + p = q$ (p, q, and x are non-negative and rational).
- solve real world problems by writing and solving equations of the form $px = q$ (p, q, and x are non-negative and rational).
- represent quantities with positive and negative numbers in real-world contexts.

- interpret positive and negative numbers in real-world contexts.
- explain the meaning of zero, in context, in each real-world situation.
- position rational numbers on horizontal and vertical number lines.
- position pairs of rational numbers on a coordinate plane.
- explain the conditions for which pairs of points are reflections across an axes in the coordinate plane.
- locate numbers and their opposites on the number line and explain their relation to 0.
- given an inequality, determine the position of one rational number relative to another.
- write an inequality and explain statements of order for rational numbers in real world situations.
- represent real-world constraint or condition by writing an inequality of the form $x > c$ or $x < c$.
- represent two quantities that related to one another, with variables.
- write an equation in two variables.
- distinguish the dependent variable from the independent variable.

Academic Vocabulary

Substitute, Equation, Inequality, Linear, Non-negative, Rational number, Coordinate plane, Ordered pair, Absolute value, Quadrant, Compose, Decompose, Perimeter, Area,

Essential Questions	Enduring Understandings
- How do you write and find the value of expressions involving exponents? - How do you use the order of operations to evaluate expressions involving exponents? - How do you write an algebraic expression to represent a situation? - How can you describe the parts of an expression? - How do you evaluate an algebraic expression or a formula? - How can you use variables and algebraic expressions to solve problems? - How can you use the strategy use a model to combine like terms? - How can you use properties of operations to write equivalent algebraic expressions? - How can you identify equivalent algebraic expressions?	- Exponents are a way to show repeated multiplication, and understanding them helps us simplify and evaluate expressions more efficiently. - Following the correct order of operations ensures that expressions are solved the same way every time, especially when exponents are included. - Algebraic expressions use numbers and variables to model real-world situations and solve problems. - Expressions are made up of terms, coefficients, variables, and operations, and knowing these parts helps us understand and work with algebra. - To evaluate means to find the value by replacing variables with numbers and using correct operations.

- How do you determine whether a number is a solution of an equation?
- How do you write and equation to represent a situation?
- How can you use models to solve addition equations?
- How do you solve addition and subtraction equations?
- How can you use models to solve multiplication equations?
- How do you solve multiplication and division equations?
- How can you use the strategy solve a simpler problem to solve equations involving fractions?
- How do you determine whether a number is a solution of an inequality?
- How do you write a inequality to represent a situation?
- How do you represent the solutions of an inequality on a number line?
- How can you write an equation to represent the relationship between an independent variable and a dependent variable?
- How can you translate between equations and tables?
- How can you use the strategy find a pattern to solve
- problems involving relationships between quantities?
- How can you graph the relationship between two quantities?
- How can you translate between equations and graphs?

- Variables help represent unknowns and changing quantities, making it easier to write and solve problems using algebra.
- Models help us visually group and simplify expressions by combining terms that have the same variable.
- The Distributive, Commutative, and Associative Properties help us rewrite expressions in different but equal forms.
- Expressions are equivalent when they have the same value, and we can use properties and simplification to check that.
- We can test a number by substituting it into the equation to see if it makes the statement true.
- Equations can be used to model real-life situations where two quantities are equal or balanced.
- Models like number lines or bar diagrams help show how to find unknown values in addition problems.
- To solve an equation, we find the value of the variable that makes the equation true, using inverse operations.
- Using models helps us understand what it means to divide or multiply to find a missing number.
- We use inverse operations to isolate the variable and find the value that makes the equation true.
- Simplifying the problem or using whole numbers first helps make solving equations with fractions easier to understand.
- Substitute the number into the inequality to see if the comparison is true.
- Inequalities show situations with limits or comparisons, such as "at least" or "no more than."
- We use open or closed circles and shading on a number line to show all possible solutions to an inequality.
- Equations can describe how one quantity (the dependent variable) changes in response to another (the independent variable).
- Tables help us see how values are related, and we can use those patterns to write or understand equations.
- Recognizing and using patterns helps us make predictions and write rules for how two quantities are connected.

	● Graphs show how one variable changes with another and help us see trends, patterns, and relationships visually. ● Equations and graphs both show how quantities are related, and we can move between them to better understand the relationship.
Core Instruction/Supplemental Materials	***Assessments***
● Go Math digital resources on HMH platform ● Interactive Student Journal ● Student Journal from Go Math ● Reteach and Enrich resources from Go Math ● Vocabulary Cards ● "Math on the Spot" videos through HMH Go Math ● iTools from HMH Go Math ● HMH Go Math Supplemental Slides ● Math Readers from Go Math ● Boddle Math ● SumDog ● Prodigy ● Kahoot ● Quizizz ● Kahn Academy ● iReady Learning Path and Lessons materials ● Newspaper hunt to find numbers at least 6 digits long to write in each form ● Find estimated amounts in new stories, on the Internet, in newspapers, or magazines ● Round multidigit numbers to specific place values in a Rounding Rodeo ● View Math Antics videos for rounding, division, and multiplication ● Play Round and Roll game ● Play Rounding Numbers Pirate game on MathPlayground.com ● Teacher Created Materials ● Teacher Created Materials ● 6.EE.B.5 Make Use of Structure	**Formative** ● Oral assessment ● Exit tickets ● Quizzes ● Journals ● Graphic Organizers ● Class discussion ● Interactive online games ● Teacher observation ● Classwork Practice ● Discussion Trifolds ● Video logs ● Show What you Know ● Lesson Quick Checks ● Share and Show ● Mid Chapter Checkpoints ● Practice and Homework pages **Summative** ● Tests ● Skills assessment/Benchmarks **Alternative** ● Centers/activities/games ● Performance assessments ● Projects

- [6.EE.B.7 Morning Walk](#)
- [6.NS.C.5 Warmer in Miami](#)
- [6.NS.C.6 Mile High](#)
- [6.NS.C.7 Jumping Flea](#)
- [6.NS.C.7a Fractions on the Number Line](#)
- [6.NS.C.7b Comparing Temperatures](#)
- [6.EE.B.8 Fishing Adventures 1](#)
- [6.NS.C.8 Nome, Alaska](#)
- [6.G.A.1, 6.G.A.3 Polygons in the Coordinate Plane](#)
- DIversity, Equity and Inclusion: Explore dependent and independent variables through the book "We Are a Garden" by Lisa Westberg Peters

Modifications/Differentiated Activities	
Enrichment/Gifted and Talented ● Differentiated curriculum for the gifted learner. ● Regular classroom curricula and instruction that is adapted, modified, or replaced. ● Educational opportunities consisting of a continuum of differentiated curricular options, instructional approaches and materials. ● Integrated G&T programming into the general education school day. ● Flexible groupings of students to facilitate differentiated instruction and curriculum. Learning Environments: ● Extensive outside reading ● Active classroom discussion ● Innovative oral and written presentations ● Deductive and inductive reasoning ● Independent writing and research ● Divergent thinking	**Multilingual Learners** ● Alternate Responses ● Notes in Advance ● Extended Time ● Simplified Instruction (written and verbal) ● Online Dictionary ● Use lots of visuals ● Use physical activity; model, role-play ● Repeat/Rephrase often ● Use lower level materials when appropriate

● Challenging problem solving situations ● Interactive, independent and interdisciplinary activities	
Special Education GENERAL MODIFICATIONS: ● Allow outlining, instead of writing for an essay or major project ● Computerized spell-check support ● Word bank of choices for answers to test questions ● Provision of calculator and/or number line for math tests ● Film or video supplements in place of reading text ● Reworded questions in simpler language ● Projects instead of written reports ● Highlighting important words or phrases in reading assignments ● Modified workload or length of assignments/tests ● Modified time demands ● Pass/no pass option ● Modified grades based on IEP BEHAVIOR MODIFICATIONS: ● Breaks between tasks ● Cue expected behavior ● Daily feedback to student ● Use de-escalation strategies ● Use positive reinforcement ● Use proximity/touch control ● Use peer supports and mentoring ● Model expected behavior by adults ● Have parent sign homework/behavior chart ● Set and post class rules ● Chart progress and maintain data	**At Risk (Intervention)** ● Maximize use of community resources ● Connect family to school and school activities ● Support through transition ● Help develop compensating strategies ● Increase opportunity for positive peer group influences ● Supplemental courses ● Placement in small and interactive groups

Grade: 6	Course: Math
Unit: 4 - Geometry and Statistics	**Big Idea:** **Chapter 10 - Area** **Chapter 11 - Surface Area and Volume** **Chapter 12 - Data Displays and Measures of Centers** **Chapter 13 -Variability and Data Distributions**
Content Area NJSLS Performance Expectations Addressed	*Interdisciplinary Connections*
6.G.A.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. 6.G.A.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems 6.G.A.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems. 6.G.A.4 Represent three-dimensional figures (e.g., pyramid, triangular prism, rectangular prism) using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems 6.EE.C.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent	**English Language Arts** - RI.MF.6.6. Integrate information when presented in different media or formats (e.g., visually, quantitatively) to develop a coherent understanding of a topic or issue. - W.RW.6.7. Write routinely over extended time frames (time for research, reflection, metacognition/self-correction, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. - L.KL.6.2.A. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases. **Social Studies** 6.1.8.CivicsPI3.d Use data and other evidence to determine the extent to which demographics influenced the debate on representation in Congress and federalism by examining the New Jersey and Virginia plans.

variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*

- 6.NS.C.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
- 6.SP.A.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
- 6.SP.A.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
- 6.SP.A.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.
- 6.SP.B.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
- 6.SP.B.5 Summarize numerical data sets in relation to their context, such as by:
  a. Reporting the number of observations.
  b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
  c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern

with reference to the context in which the data were gathered.
    d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which

Standards for Mathematical Practice
- 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.
- MP.7 Look for and make use of structure.
- MP.8 Look for and express regularity in repeated reasoning.

Computer Science and Design Thinking	*Career Readiness, Life Literacies, and Key Skills*
8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose. 8.1.8.AP.6: Refine a solution that meets users' needs by incorporating feedback from team members and users.	**21st Century Skills** 9.4.8.CT.2: Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal. **Technology** 9.4.8.DC.7: Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys. **Career Readiness, Life Literacies, and Key Skills Practices:** - Demonstrate creativity and innovation. - Use technology to enhance productivity, increase collaboration and communicate effectively.

Student Learning Objectives (SLO)

Students will be able to…
- graph inequalities of the form $x > c$ or $x < c$ on number lines.

- graph points in all four quadrants of the coordinate plane in order to solve real-world and mathematical problems.
- draw polygons in the coordinate plane.
- use absolute value to find distances between points with the same first coordinate or the same second coordinate.
- use coordinates to solve real-world distance, perimeter, and area problems.
- compose rectangles in order to find the area of triangles, special quadrilaterals and polygons.
- decompose triangles, special quadrilaterals, and polygons into triangles and other shapes in order to find their area.
- compose rectangles and decompose into triangles in order to solve real-world problems.
- analyze a given graph and table of values, and relate them to the equation.
- distinguish questions that are statistical (anticipate variability in data) from those that are not.
- distinguish center from variation.
- display numerical data in dot plots on a number line.
- display numerical data in histograms on a number line.
- display numerical data in box plots on a number line.
- determine the number of observations of a data set.
- describe the data in context, including how it was measured and the units of measurement.
- calculate measures of center, mean and median.
- calculate measures of spread, interquartile range and mean absolute deviation.
- describe the overall shape of a distribution (skewed left, skewed right, etc).
- identify striking deviations (outliers).
- choose measures of center and variability appropriate to the shape of the distribution and context.
- graph points in all four quadrants of the coordinate plane in order to solve real-world and mathematical problems.
- use coordinates to solve real-world distance, perimeter, and area problems.
- pack a right rectangular prism with fractional edge lengths with unit fraction cubes.
- show that the volume found by packing is the same as would be found by multiplying the edge lengths of the prism.
- apply volume formulas, $V = l\,w\,h$ and $V = b\,h$, to right rectangular prisms with fractional edge lengths.
- represent three dimensional objects with nets made up of rectangles and triangles.

Academic Vocabulary

Equation, Variable, Independent variable, Dependent variable, Dot plot, Histogram, Box-and-whisker plot (box plot), Measure of center, Measure of spread, Distribution, Outlier, Ratio, Unit rate, Percent, Coordinate plane, Quadrant, Absolute value

Essential Questions	Enduring Understandings
- How can you find the area of parallelograms? - What is the relationship among the areas of triangles, rectangles, and parallelograms? - How can you find the area of triangles? - What is the relationship between the areas of trapezoids and parallelograms? - How can you find the area of trapezoids? - How can you find the area of regular polygons? - How can you find the area of composite figures? - How can you use the strategy find a pattern to show how changing dimensions affects area? - How can you plot polygons on a coordinate plane and find their side lengths? - How do you use nets to represent three-dimensional figures? - What is the relationship between a net and the surface area of a prism? - How can you find the surface area of prisms? - How can you find the surface area of a pyramid? - What is the relationship between the volume and edge lengths of a prism with fractional edge lengths? - How can you find volumes of rectangular prisms with fractional edge lengths? - How can you use the strategy use a formula to solve problems involving area, surface area, and volume? - How do you identify a statistical question? - How can you describe how a data set was collected? - How can you use dot plots and frequency tables to display data? - How can you use histograms to display data? - How does the mean represent the fair share and balance point? - How can you describe a set of data using mean, median, and mode? - How does an outlier affect measures of center? - How can you use the strategy draw a diagram to solve problems involving data?	- The area of a parallelogram can be found using base × height, which helps solve problems with shapes and space. - Triangles are half of rectangles or parallelograms, so understanding one helps you understand the others. - You can find the area of a triangle by multiplying the base by the height and dividing by 2. - Trapezoids combine parts of parallelograms, so their area can be calculated using a similar strategy. - To find the area of a trapezoid, you average the two bases and multiply by the height. - The area of regular polygons can be found by breaking them into triangles and using known formulas. - Composite figures can be broken into simpler shapes, and their areas can be added together to find the total. - Noticing patterns helps predict how increasing or decreasing dimensions changes the total area. - By using coordinates, you can measure distances between points to find side lengths and calculate area. - Nets are two-dimensional layouts that help visualize and understand the surfaces of 3D figures. - Each face of the net represents part of the prism's surface area; adding the areas of all faces gives the total surface area. - Surface area of a prism is found by calculating the area of each face and adding them all together. - To find a pyramid's surface area, add the area of the base and the triangular faces (lateral area). - Volume is found by multiplying length × width × height—even when the edges are fractions. - You can multiply fractional side lengths to find volume, just as you do with whole numbers. - Formulas provide a reliable method for solving problems with shapes and space efficiently and accurately.

- How can you describe overall patterns in a data set?
- How can you use box plots to display data?
- How do you calculate the mean absolute deviation of a data set?
- How can you summarize a data set by using range, interquartile range, and mean absolute deviation?
- How can you choose appropriate measures of center and variability to describe a data set?
- What do measures of center and variability indicate about a data set?
- How can you describe the distribution of a data set collected to answer a statistical question?
- How can you use the strategy work backward to draw conclusions about a data set?

- Statistical questions involve collecting data and have answers that vary, not just one single response.
- Knowing how data was collected helps us decide if the information is fair, accurate, and useful.
- Dot plots and frequency tables organize data so we can see patterns and compare values easily.
- Histograms show how data is spread across ranges, which helps us see trends and groupings.
- The mean is like a fair share—it shows what each person would get if the total were shared equally.
- Mean, median, and mode help us summarize a data set and understand its center and most common values.
- An outlier can pull the mean higher or lower, making it less representative of the rest of the data.
- Drawing diagrams can help us visualize the data, spot patterns, and solve problems more easily.
- Identifying patterns helps us make sense of the data by showing trends, clusters, and outliers.
- Box plots visually show how data is spread out using quartiles, the median, and any extremes, helping us compare groups easily.
- Mean absolute deviation tells us how spread out the data is by measuring how far each value is from the mean.
- Range, IQR, and MAD show how much the data varies and help describe the consistency and spread of values.
- Different types of data require different tools, and choosing the right measure helps accurately describe what the data shows.
- Measures of center (mean, median, mode) show where the middle of the data is, and measures of variability show how spread out the data is.
- Distribution shows how the values are spread and helps us understand what the data is telling us about the question asked.

	● Working backward helps us figure out missing information or understand how the data behaves by using what we already know.
Core Instruction/Supplemental Materials	***Assessments***
● Go Math digital resources on HMH platform ● Interactive Student Journal ● Student Journal from Go Math ● Reteach and Enrich resources from Go Math ● Vocabulary Cards ● "Math on the Spot" videos through HMH Go Math ● iTools from HMH Go Math ● HMH Go Math Supplemental Slides ● Math Readers from Go Math ● Boddle Math ● SumDog ● Prodigy ● Kahoot ● Quizizz ● Kahn Academy ● iReady Learning Path and Lessons materials ● Newspaper hunt to find numbers at least 6 digits long to write in each form ● Find estimated amounts in new stories, on the Internet, in newspapers, or magazines ● Round multidigit numbers to specific place values in a Rounding Rodeo ● View Math Antics videos for rounding, division, and multiplication ● Play Round and Roll game ● Play Rounding Numbers Pirate game on MathPlayground.com ● Teacher Created Materials ● Teacher Created Materials ● 6.EE.C.9 Families of Triangles ● 6.SP.A.1 Identifying Statistical Questions	**Formative** ● Oral assessment ● Exit tickets ● Quizzes **Summative** ● Tests ● Skills assessment/Benchmarks **Alternative** ● Centers/activities/games ● Performance assessments

- 6.SP.A.2, 6.SP.B.4 Puppy Weights
- 6.SP.A.3 Is It Center or Is It Variability?
- 6.SP.B.5c Number of Siblings
- 6.SP.B.5d Mean or Median?
- Social Emotional Learning - Read and explore perseverance and self motivation with "What's Your Angle Pythagoras?" By Julie Mila

Modifications/Differentiated Activities

Enrichment/Gifted and Talented
- Differentiated curriculum for the gifted learner.
- Regular classroom curricula and instruction that is adapted, modified, or replaced.
- Educational opportunities consisting of a continuum of differentiated curricular options, instructional approaches and materials.
- Integrated G&T programming into the general education school day.
- Flexible groupings of students to facilitate differentiated instruction and curriculum.

Learning Environments:
- Extensive outside reading
- Active classroom discussion
- Innovative oral and written presentations
- Deductive and inductive reasoning
- Independent writing and research
- Divergent thinking
- Challenging problem solving situations
- Interactive, independent and interdisciplinary activities

Multilingual Learners
- Alternate Responses
- Notes in Advance
- Extended Time
- Simplified Instruction (written and verbal)
- Online Dictionary
- Use lots of visuals
- Use physical activity; model, role-play
- Repeat/Rephrase often
- Use lower level materials when appropriate

Special Education
GENERAL MODIFICATIONS:
- Allow outlining, instead of writing for an essay or major project
- Computerized spell-check support

At Risk (Intervention)
- Maximize use of community resources
- Connect family to school and school activities
- Support through transition

- Word bank of choices for answers to test questions
- Provision of calculator and/or number line for math tests
- Film or video supplements in place of reading text
- Reworded questions in simpler language
- Projects instead of written reports
- Highlighting important words or phrases in reading assignments
- Modified workload or length of assignments/tests
- Modified time demands
- Pass/no pass option
- Modified grades based on IEP

BEHAVIOR MODIFICATIONS:
- Breaks between tasks
- Cue expected behavior
- Daily feedback to student
- Use de-escalation strategies
- Use positive reinforcement
- Use proximity/touch control
- Use peer supports and mentoring
- Model expected behavior by adults
- Have parent sign homework/behavior chart
- Set and post class rules
- Chart progress and maintain data

- Help develop compensating strategies
- Increase opportunity for positive peer group influences
- Supplemental courses
- Placement in small and interactive groups