

Grade 6- Math Curriculum

Number Sense-Addition/Subtraction

- Read and write whole numbers through the trillions place and decimals through the millionths place in standard and expanded form
- Write the expanded form of a number using exponents
- Write word and mathematical expressions
- Evaluate addition and subtraction expressions
- Write equations to solve word problems and vice versa

Multiplication-Whole Numbers and Decimals

- Estimate and find products with whole numbers, decimals, and money amounts
- Write exponential expressions in standard form and vice versa
- Write numbers in scientific notation
- Apply problem –solving strategies to multi-step problems

Expressions and Equations

- Translate word expressions and equations into numerical expressions and algebraic equations
- Apply the Order of Operations to evaluate expressions
- Write and solve addition, subtraction, multiplication and division equations
- Apply formulas to solve equations

Integers

- Locate integers and their opposites on a number line
- Compare, order, add, subtract, multiply and divide integers
- Apply the Order of Operations to integers
- Evaluate expressions and solve equations involving integers

Concepts in Algebra

- Write and solve one step, two-step equations with integers
- Use function rules to complete ordered pairs and function tables
- Use ordered pairs to identify and locate points on a coordinate grid
- Graph transformations and functions on a coordinate plane
- Use algebraic patterns to extend sequence

Number Theory and Fractions

- Identifying prime and composite numbers by utilizing the prime factorization of a number
- Extension of reading, writing and renaming mixed number as improper fractions
- Applying prime factorization of a number to find GCF, and LCM
- Identify, compare and order rational numbers; renaming decimals as fractions and fractions as decimals

Fractions-Addition/Subtraction

- Application of addition properties to facilitate computation with fractions
- Application of algorithms for addition and subtraction of fractions and mixed numbers
- Evaluate expressions and solve equations involving addition and subtraction of fractions

Fractions-Multiplication, Division and Probability

- Application of multiplication properties to facilitate computation with fractions
- Application of algorithms for multiplication and division of fractions and mixed numbers
- Application of algorithms to the concepts of probability, permutations and combinations

Data and Statistics

- Interpret measures of central tendency and range
- Interpret circle graphs
- Construct and interpret frequency tables, line plots, stem-and leaf-plots, histograms, and double bar /line graphs

Ratio, Proportion and Percent

- Write ratios as fractions in simplest form
- Write equivalent rates
- Use ratios to solve unit rate, unit cost, and proportion problems
- Use proportions to solve problems involving similar figures and indirect measurement
- Translate between fractions, decimals and percents for percents from less than 1% through greater than 100%

Percent Applications

- Find the percent of a number and the percent one number is of another
- Find the original number, given a percentage of that number
- Find sales tax, total cost, amount of discount, and sale price
- Solve problems by writing and solving an equation

Geometry

- Identify polygons and their attributes
- Find the measure of an angle in triangles or quadrilaterals
- Explore congruence and similarity in polygons
- Identify parts of a circle
- Classify solid figures
- Formally prove theorems based on logical reasoning

Measurement

- Relate customary and metric units of measure
- Find the area and perimeter of polygons
- Find the area and circumference of a circle
- Find the surface area and volume of solid figures
- Solve problems by using drawings and formulas