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JC Schools 6th Grade Yearly Math Standards

Units	Priority Standards	Supporting Standards
Unit 1 Expressions and Equations 30 Days	**6.EEI.A.1** Describe the difference between an expression and an equation. **6.EEI.A.2.d, e** Create and evaluate expressions involving variables and whole number exponents. d. Write and evaluate algebraic expressions e. Understand the meaning of the variable in the context of the situation. **6.EEI.A.3** Identify and generate equivalent algebraic expressions using mathematical properties. **6.EEI.B.5** Understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true. **6.EEI.B.6** Write and solve equations using variables to represent quantities, and understand the meaning of the variable in the context of the situation. **6.EEI.C.9.a,b** Identify and describe relationships between two variables that change in relationship to one another. a. Write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable. b. Analyze the relationship between the dependent and independent variables using graphs, tables, and equations and	**6.EEI.A.2.a-c** Create and evaluate expressions involving variables and whole number exponents. a. Identify parts of an expression using mathematical terminology. b. Evaluate expressions at specific values of the variables. c. Evaluate non-negative rational number expressions. **6.EEI.B.4** Use substitution to determine whether a given number in a specified set makes a one-variable equation or inequality true. **6.EEI.B.7** Solve one-step linear equations in one variable involving non-negative rational numbers. **6.NS.B.2** Demonstrate fluency with division of multi-digit whole numbers. **6.EEI.B.8.a** a. a. Write an inequality of the following forms to represent a constraint or condition: i. $x > c$ ii. $x < c$ iii. $x \geq c$ iv. $x \leq c$

	relate these representations to each other.	
Unit 2 The Number System 30 Days	**6.NS.A.1.a** Compute and interpret quotients of positive fractions a.Solve problems involving division of fractions by fractions. **6.NS.B.4.b** Find common factors and multiples. b. Use the distributive property to express a sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers.	**6.NS.B.2** Demonstrate fluency with division of multi-digit whole numbers. **6.NS.B.3** Demonstrate fluency with addition, subtraction, multiplication and division of decimals. **6.NS.B.4.a** Find common factors and multiples. a. Find the greatest common factor (GCF) and the least common multiple (LCM). **6.EEI.B.7** Solve one-step linear equations in one variable involving non-negative rational numbers. **6.EEI.B.4** Use substitution to determine whether a given number in a specified set makes one-variable equation ~~or inequality true.~~
Unit 3 Statistics and Probability 18 Days	**6.DSP.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.DSP.B.5.d** Summarize numerical data sets in relation to the context. d. Analyze the choice of measures of center and variability based on the shape of the data distribution and/or the context of the data.	**6.DSP.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. **6.DSP.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 value varies from a single number. **6.DSP.B.4.a, b**

		Display and interpret data. a. Use dot plots, histograms and box plots to display and interpret numerical data. b. Create and interpret circle graphs. **6.DSP.B.5.a-c** Summarize numerical data sets in relation to the context. a. Report the number of observations. b. Describe the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Give 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 of the data.
Unit 4 Ratios, Proportions, and Percentages 28 Days	**6.RP.A.1** Understand a ratio as a comparison of two quantities and represent these comparisons. **6.RP.A.3.a-d** Solve problems involving ratios and rates. a. Create tables of equivalent ratios, find missing values in the tables and plot the pairs of values on the Cartesian coordinate plane. b. Solve unit rate problems. c. Solve percent problems. d. Convert measurement units within and between two systems of measurement. **6.NS.C.8** Extend prior knowledge to generate equivalent	**6.RP.A.2** Understand the concept of a unit rate associated with a ratio, and describe the meaning of unit rate. **6.NS.C.6.a** Locate a rational number as a point on the number line. a. Locate rational numbers on a horizontal or vertical number line. (Find and position pairs of integers and other rational numbers on a coordinate plane).

	representations of rational numbers between fractions, decimals and percentages (limited to terminating decimals and/or benchmark fractions of ⅓ and ⅔)	
Unit 5 Geometry 25 Days	**6.RP.A.3.d** Solve problems involving ratios and rates. d. Convert measurement units within and between to systems of measurement. **6.GM.A.3.a-d** Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane. a. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the Cartesian coordinate plane. b. 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 distances between points with the same first coordinate or the same second coordinate. d. Construct polygons in the Cartesian coordinate plane.	**6.GM.A.1** Find the area of polygons by composing or decomposing the shapes into rectangles or triangles. **6.GM.A.2.a,b** Find the volume of right rectangular prisms. a. Understand that the volume of a right rectangular prism can be found by filling the prism with multiple layers of the base. b. Apply V = l * w * h and V = B * h to find the volume of right rectangular prisms. **6.GM.A.4.a,b** Solve problems using nets. a. Represent three-dimensional figures using nets made up of rectangles and triangles. b. Use nets to find the surface area of three-dimensional figures whose sides are made up of rectangles and triangles.
Unit 6 Integers 25 Days	**6.NS.C.6.c** Find common factors and multiples. c. Understand that a number and its opposite (additive inverse) are located on opposite sides of zero on the number line. **6.NS.C.7** Understand that the absolute value of a rational number is its distance from 0 on the number line. **6.EEI.C.9.a,b** Identify and describe relationships between two variables that	**6.NS.C.5** Use positive and negative numbers to represent quantities. **6.NS.C.6.a-b** Locate a rational number as a point on the number line. a. Locate rational numbers on a horizontal or vertical number line. b. Write, interpret, and explain problems of ordering of rational numbers.

	change in relationship to one another. a. Write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable. b. Analyze the relationship between the dependent and independent variables using graphs, tables, and equations and relate these representations to each other. **6.GM.A.3.a-d** Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane. a. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the Cartesian coordinate plane. b. 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 distances between points with the same first coordinate or the same second coordinate. d. Construct polygons in the Cartesian coordinate plane. **6.RP.A.3.a** Solve problems involving ratios and rates. a. Create tables of equivalent ratios, find missing values in the tables and plot the pairs of values on the Cartesian coordinate plane.	**6.EEI.B.8.a,b** Recognize that inequalities may have infinitely many solutions. a.Write an inequality of the following forms to represent a constraint or condition: v. $x > c$ vi. $x < c$ vii. $x \geq c$ viii. $x \leq c$ b.Graph the solution set of an inequality.