7th Grade Math

Purpose
Students will become flexible thinkers and complex problem solvers by applying essential mathematical ideas and concepts through a rigorous, focused, and relevant curriculum.

Philosophy Statement
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Math Concepts and Math Fundamentals

Statement	Exceeds	Secure	Developing	Beginning
Adds and subtracts mixed number fractions with unlike denominators.	*Solves equations with fractions.	Adds and subtracts mixed numbers with like and unlike denominators; puts answers in simplest form; demonstrates steps on a number line.	Adds and subtracts mixed numbers with like and unlike denominators AND plots the fraction on a number line.	Adds and subtracts fractions with like and unlike denominators.
Multiplies and divides fractions.	*Solves equations with fractions.	Multiplies AND divides mixed number fractions.	Multiplies OR divides mixed number fractions.	Multiplies and divides simple fractions.
Evaluates integer operations.	*Solves real-world problems involving integers.	Adds, subtracts, multiplies, and divides integers.	Solves problems with integers using 2 of the 4 operations.	Adds integers with or without manipulatives, number lines, etc.
Fluently adds, subtracts, multiplies, and divides multi-digit decimals.	*Solves equations with decimals numbers.	Adds, subtracts, multiplies decimals and whole numbers AND divides decimals with decimal dividends and decimal divisors using the standard division algorithm.	Adds and subtracts decimals and whole numbers AND multiplies decimals (using any algorithm, i.e. lattice, standard, or partial products).	Adds and subtracts decimals with and without regrouping when written horizontally.
Solves problems by graphing points on a coordinate plane.	*Graphs solutions to a linear function using y=mx+b.	Uses input-output tables to find linear relationships and graph.	Finds distance between points with the same first coordinate or the same second coordinate.	Graphs points on a coordinate plane in all four quadrants AND names the ordered pair for graphed points.

Identifies when two expressions are equivalent.	*Uses distributive property to distribute monomials.	Identifies when two expressions are equivalent by applying the distributive property and/or combining like terms (e.g. 3(2x - 5) + 7 = 6x - 8).	Identifies when two expressions are equivalent by combining like terms (e.g. 3x + 4x = 7x).	Identifies like terms in expressions.
Solves problems using algebraic equations.	*Solves equations with rational numbers.	Writes one-step equations from a real-world problem and finds the solution.	Solves two-step equations AND substitutes a number to determine if the equation is true.	Solves one-step equations.
Solves one and two step inequalities.	*Solves inequalities with rational numbers.	Writes and solves one variable inequalities (one and two step) AND graphs inequalities on a number line.	Understands that inequalities have infinite number of solutions AND Substitutes a value for a variable and determine if the value is a solution for the inequality AND Graphs inequalities on a number line.	Understands that an inequality has multiple solutions AND can tell if a number sentence including an inequality is true or false.
Evaluates algebraic expressions.	*Evaluates expressions using rational numbers	Writes and evaluates expressions from real-world story problems using order of operations.	Evaluates algebraic expressions using order of operations including exponents and grouping symbols.	Identify parts of an expression using mathematical terms (sum, difference, product, and quotient)
Uses formulas to evaluate problems.	*Solves a real-world problem involving area and volume.	Finds the measurement of the missing side when given the area and the length of one side with quadrilaterals and triangles with the given formula.	Finds the volume of a rectangular prism by applying the given formula.	Finds the area of triangles and quadrilaterals with the given formulas.

The asterisk (*) denotes one possible way a student could demonstrate enrichment or extension that would be designated as Exceeds Standard