**5th Grade Math: Subunit Intended Learning Outcomes**

Subunit One: Number Sense & Operations

* Students will use different forms of “one” to represent a fraction, as well as find decimals and percents that represent fractions and round them.
* Students will understand why and how to find common denominators to add and subtract fractions.
* Students will understand the importance of place value.
* Students will learn how to appropriately estimate and round whole numbers, fractions, decimals and percents through computations.
* Students will use models to represent ratios.
* Students will utilize the number line to understand the values of numbers less than zero.
* Students will be able to identify perfect squares and their roots.
* Students will know how to use multiplication and addition properties to perform computations.

Subunit Two: Measurement

* Students will find appropriate units to measure and use a tool to measure angles.
* Students will describe the difference between surface area and volume.
* Students will demonstrate differences among linear, square, and cubic units.
* Students will develop formulas for perimeter, area, and volume of certain shapes.
* Students will perform conversions within the same measurement system in order to do computations.

Subunit Three: Geometry & Spatial Sense

* Students will be able to label the parts of an angle.
* Students will describe parts and properties of lines.
* Students will determine the relationship between the radius, diameter, center, and circumference of a circle with respect to Pi.
* Students will use the properties of congruent figures to solve problems.

Subunit Four: Algebra

* Students will create and interpret meanings of equations and inequalities.
* Students will use variables as unknown quantities in computations.
* Students will justify rules of patterns and functions through physical models, computers, and calculators.

Subunit Five: Data Analysis & Probability

* Students will identify probability and ratios through simple experiments.
* Students will know how to list and explain all possible outcomes.
* Students will determine and describe the meaning of mean, median, range, and mode.
* Students will justify the appropriate types of data to collect and answer questions.
* Students will read and interpret frequency tables and know how to select appropriate graphs and tables to represent information.