

TRI-COUNTY CHARTER SCHOOL PARTNERSHIP

**Power Standards
Math – Fifth Grade**

STRAND A: NUMBER SENSE, CONCEPTS, AND OPERATIONS

Standard 1: The student understands the different ways numbers are represented and used in the real world.

MA.A.1.2.1: The student names whole numbers, combining 3-digit numeration (hundreds, tens, ones) and the use of number periods, such as ones, thousands, and millions, and associates verbal names, written word names, and standard numerals with whole numbers, commonly used fractions, decimals, and percents.

1. reads, writes, and identifies whole numbers, fractions, and mixed numbers.

MA.A.1.2.2: The student understands the relative size of whole numbers, commonly used fractions, decimals, and percents.

2. compares and orders whole numbers using concrete materials, number lines, drawings, and numerals.
3. compares and orders commonly used fractions, percents, and decimals to thousandths using concrete materials, number lines, drawings, and numerals.

Standard 3: The student understands the effects of operations on numbers and the relationship among these operations, selects appropriate operations, and computes for problem solving.

MA.A.3.2.1: The student understands and explains the effects of addition, subtraction, and multiplication on whole numbers, decimals, and fractions, including mixed numbers, and the effects of division on whole numbers, including the inverse relationship of multiplication and division.

3. predicts the relative size of solutions in the followings:
 - addition, subtraction multiplication, and division, of whole numbers
 - addition, subtraction, and multiplication of fractions, decimals, and mixed numbers, with particular attention given to fraction and decimal multiplication (for example, when two numbers less than one are multiplied, the result is a number less than either factor)

M.A.A.3.2.3: The student adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

1. Solves real-world problems involving addition, subtraction, multiplication, and division of whole numbers, and addition, subtraction, and multiplication of decimals, fractions, and mixed numbers using appropriate method (for example, mental math, pencil and paper, and calculator).

STRAND B: MEASUREMENT**Standard 1: The student measures quantities in the real world and uses the measures to solve problems.**

MA.B.1.2.2: The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

1. solves real-world problems involving measurement of the following:
 - length (for example, eighth-inch, kilometer, mile)
 - weight or mass (for example, milligram, ton)
 - temperature (comparing temperature changes within the same scale using either a Fahrenheit or a Celsius thermometer)
 - angles (acute, obtuse, straight)
2. solves real-world problems involving perimeter, area, capacity, and volume using concrete, graphic or pictorial models.
3. uses schedules, calendars, and elapsed time to solve real-world problems.

STRAND C: GEOMETRY AND SPATIAL SENSE**Standard 1: The student describes, draws, identifies, and analyzes two- and three-dimensional shapes.**

MA.C.1.2.1: The student, given a verbal description, draws and/or models two- and three-dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures.

1. uses appropriate geometric vocabulary to describe properties and attributes of two- and three-dimensional figures (for example, obtuse and acute angles; radius; equilateral, scalene, and isosceles triangles).

Standard 3: The student uses coordinate geometry to locate objects in both two and three dimensions and to describe objects algebraically.

MA.C.3.2.2: The student identifies and plots positive ordered pairs (whole numbers) in a rectangular coordinate system (graph).

1. knows how to identify, locate, and plot ordered pairs of whole numbers on a graph or on the first quadrant of a coordinate system.

STRAND D: ALGEBRAIC THINKING**Standard 1: The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions.**

MA.D.1.2.1: The student describes a wide variety of patterns and relationships through models, such as manipulatives, tables, graphs, rules using algebraic symbols.

1. describes, extends, and creates numerical and geometric patterns using a variety of models (for example, lists, tables, graphs, charts, diagrams, calendar math).