

CORE@TCA SIDE BY SIDE STANDARDS

3rd /4th / 5th Grade Essential Standards-Mathematics- Based on State Key Content Standards compiled by the Pulliam Group

Strand	Standard 3 rd Grade	Standard 4 th Grade	Standard 5 th Grade
Number Sense	1.1 Count, read and write whole numbers to 10,000 1.2 Compare and order whole numbers to 10,000 using (<=>) 1.3 Identify the place value for each digit in numbers to 10,000 1.5 Use expanded notation to represent numbers 2.1 Find the sum or difference of two whole numbers between 0 and 10,000 2.2 Memorize multiplication table for numbers between 1 and 10 2.3 Use the inverse relationship of multiplication and division to solve problems 2.4 Multiply and divide one-digit numbers by multi-digit numbers. 3.2 Compare, add, and subtract simple fractions 3.1 Solve problems involving addition, subtraction, multiplication, and division of money amounts in decimal notation	1.1 Read and write whole numbers to the millions 1.2 Order and compare whole numbers to 9,999 and decimals to two places 1.3 Round whole numbers through the millions (up to 1,000,000) 1.4 Decide when a rounded solution is called for and explain why 1.8 Use concepts of negative numbers (number line, temperature, etc.) 1.9 Identify on a number line the relative position of a positive fraction, mixed numbers, and decimals to two decimal places 3.1 Use standard algorithms for the addition and subtraction of multi-digit numbers 3.2 Use an algorithm for multiplying multi-digit numbers by two digit numbers 3.3 Solve problems involving multiplication of multi-digit numbers by two digit 3.4 Solve problems involving division of multi-digit numbers by two digit numbers 4.0 Know how to factor small whole numbers 5.0 Know that numbers such as 2,3,5,7 and 11 do not have any factors except 1 and themselves and that such numbers are prime numbers	1.2 Interpret percents as part of a hundred, find decimal and percent equivalents for common fractions, and compute a given percent of a whole number 1.4 Determine the prime factors of all numbers through 50, and write the numbers as the product of their prime factors by using exponents to show the multiples of a factor 1.5 Identify and represent on a number line decimals, fractions, mixed numbers and positive and negative integers 2.1 Add, subtract, multiply and divide whole numbers and decimals 2.2 Demonstrate proficiency with division, including division with positive decimals and long division with multi-digit divisors 2.3 Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less); express answers in the simplest form
Algebra and functions	1.1 Represent relationships of quantities in the form of mathematical expressions, equations, or inequalities 2.1 Solve simple problems involving the relationship between two quantities (e.g., find the total cost of multiple items given the cost per unit)	1.2 Interpret and evaluate mathematical expressions with parentheses 1.3 Use parentheses to indicate which operation to perform first 1.6 Understand that an equation such as $y=3x+5$ is a prescription for determining a second number when a first number is given 2.1 Know that equals added to equals are equal 2.2 Know that equals multiplied by equals are equal	1.2 Use a letter to represent an unknown number; write and evaluate simple algebraic expressions in one variable by substitution 1.4 Identify and graph ordered pairs in the four quadrants of the coordinate plane 1.5 Solve problems involving linear functions with integer values; write the equation, and graph the resulting ordered pair of integers on a grid
Measurement and Geometry	1.1 Estimate the area and volume of solid figures by covering them with squares or by counting the number of cubes that would fill them 1.2 Find the perimeter of a polygon 2.1 Identify, describe, and classify polygons (pentagons, hexagons, and octagons) 2.2 Identify the attributes of triangles 2.3 Identify the attributes of quadrilaterals	2.1 Draw the point corresponding to linear relationship on graph paper 2.2 Understand that the length of a horizontal line segment equals the difference of the x -coordinates 2.3 Understand that the length of a vertical line segment equals the difference of the y -coordinates	1.1 Use the formula for the area of a triangle and a parallelogram 1.2 Construct a cube and rectangular box from two-dimensional patterns, and use these patterns to compute the surface area for the objects 1.3 Understand the concept of volume, and use the appropriate units in common measuring systems to compare the volume of rectangular solids 2.1 Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, and triangles by using appropriate tools 2.2 Know that the sum of the angles of any triangle is 180° and the sum of the angles of and quadrilateral is 360° and use this information to solve problems
Statistics, Data Analysis, and Probability	1.7 Record the possible outcomes for a simple random event 1.8 Summarize and display the results of probability experiments in a clear and organized way (e.g., use a bar graph or a line plot)	1.0 Organize, represent, and interpret data	1.4 Identify ordered pairs of data from a graph, and interpret the meaning of the data in terms of the situation depicted by the graph 1.5 Know how to write ordered pairs correctly, for example, (x,y)
Mathematical Reasoning	1.0 Make decisions about how to set up a problem 2.0 Use strategies, skills and concepts in finding solutions	1.0 Make decisions about how to approach problems 2.0 Use strategies, skill, and concepts in finding solutions	1.0 Make decisions about how to solve problems 2.0 Use strategies, skills, and concepts in finding solutions