

Strand	Standards Reference *Assessed Locally	Grade 4: MATH Grade Level Expectations	SBA Emphasis
Numeration M 1.2	Understanding Numbers	The student understands WHOLE NUMBERS and SIMPLE FRACTIONS. Student can:	22-26%
	[4] N-1	Read, write, order, and [count*] numbers to ten thousands.	
	[4] N-2	Model using base ten blocks or identify place value positions to ten thousands.	
	[4] N-3	Convert between whole numbers expressed in expanded notation and standard form.	
	[4] N-4	Identify, describe with explanations, or illustrate equal parts of a whole, a region, or a set using models.	
	[4] N-5	Identify, describe with explanations, or illustrate equivalent fractions or mixed numbers with denominators 2 through 12.	
	Understanding Operations	The student understands MATHEMATICAL OPERATIONS. Student can:	
	[4] N-6	[Use models, explanations, number lines, or real life situations*], describe, or illustrate the processes of multiplication.	
	[4] N-7	[Use models, explanations, number lines, or real life situations*], describe, or illustrate the relationship between multiplication and addition.	
	[4] N-8	[Use models, explanations, number lines, or real life situations*], describe, or illustrate the relationship between multiplication and division.	
	[4] N-9	[Use models, explanations, number lines, or real life situations*], describe, or illustrate the process of adding and subtracting fractions with like denominators (2 to 12).	
	Number Theory	The student understands NUMBER THEORY. Using manipulatives or models, student can:	
	[4] N-10*	Describe or illustrate identity property of multiplication.	
[4] N-11*	Model (with manipulatives) and explain commutative property of multiplication.		
[4] N-12	Identify or list factors and multiples of a number.		
Measurement M 2.2	Measurable Attributes	The student understands MEASURABLE ATTRIBUTES. Student can:	12-16%
	[4] MEA-1*	Estimate length to the nearest half-inch or centimeter.	
	[4] MEA-2*	Estimate temperature (degree Celsius or Fahrenheit) or weight (pounds or kilograms) to the nearest unit.	
	[4] MEA-3	Identify or use equivalent measures for length (inch, foot, yard: 12 inches = 1 foot, 3 feet = 1 yard; centimeter, meter: 100 centimeters = 1 meter).	
	[4] MEA-4	Select an appropriate unit of metric measurement to estimate length, time, weight, or temperature.	
	Measurement Techniques	The student understands MEASUREMENT TECHNIQUES. Student can:	
	[4] MEA-5	Measure length to nearest half-inch or [centimeter*].	
	[4] MEA-6	Tell time in 5-minute increments using analog clock.	
	[4] MEA-7*	Count back change from \$5.00.	
	[4] MEA-8	Determine possible combinations of coins and bills equal to given amounts.	
[4] MEA-9*	Simulate multiple purchases and calculate the amount of change from a given bill(s) up to \$50.00.		
Estimation & Computation M 3.2	Estimation	The student understands ESTIMATION. Student can:	18-22%
	[4] E&C-1	Identify or use [a variety of*] strategies (e.g., rounding to appropriate place value, multiplying by powers of ten, using front-end estimation) to estimate the results of whole number addition or subtraction to 10,000 or simple multiplication or division.	
	Computation	The student understands COMPUTATION. Student can:	
	[4] E&C-2*	Recall basic multiplication facts, products to 100, and corresponding division facts efficiently.	
	[4] E&C-3	Add or subtract three-digit whole numbers.	
	[4] E&C-4	Multiply two-digit numbers by single-digit numbers.	
	[4] E&C-5	Add fractions with like denominators to 12.	

Functions & Relationships M 4.2	Patterns & Functions	The student understands PATTERNS & FUNCTIONS. Student can:	12-16%
	[4] F&R-1	Extend patterns that use addition, subtraction, multiplication, or symbols, up to 10 terms, represented by models (function machines), tables, sequences, or in problem situations.	
	[4] F&R-2*	Use rules to express the generalization of a pattern using words, lists, or tables.	
	[4] F&R-3*	Use manipulatives, including a calculator, as tools when describing, extending, or representing a number sequence.	
	Equations/Inequalities	The student understands EQUATIONS & INEQUALITIES. Student can:	
	[4] F&R-4	Use an open number sentence (addition or subtraction, or multiplication) to solve for an unknown represented by a box or circle (e.g., $9 + \bigcirc = 36$, $8 \times \bigcirc = 56$, $3 \times 6 = \bigcirc$).	
Geometry M 5.2	Geometric Relationships	The student understands GEOMETRIC RELATIONSHIPS. Student can:	12-16%
	[4] G-1	Use the attributes and properties of angles to identify and compare triangles (acute, right, or obtuse) and regular polygons.	
	[4] G-2	Use the attributes and properties of solid figures (edges, vertices, or the number or shape of faces) to [model*], identify, compare, or describe solid figures (cubes, cylinders, rectangular prisms, spheres) (e.g., cans, dice, boxes, balls).	
	Shapes	The student understands SIMILARITY, CONGRUENCE, SYMMETRY, & TRANSFORMATION OF SHAPES. Student can:	
	[4] G-3	Identify, or draw all lines of symmetry to identify figures that are symmetrical.	
	[4] G-4	Identify shapes that are congruent.	
	[4] G-5	Illustrate or identify the results of transformations (turns) or polygons by continuing a given pattern.	
	Perimeter & Area	The student understands PERIMETER, AREA, VOLUME, & SURFACE AREA. Student can:	
	[4] G-6	Estimate or determine area or perimeter of rectangles, squares, and irregular shapes on grids with a key or ruler.	
	Position & Direction	The student understands POSITION & DIRECTION. Using manipulatives or models, student can:	
	[4] G-7*	Describe relative location of places or objects on a map using compass directions of north, south, east, or west.	
	Construction	The student understands GEOMETRIC DRAWINGS OR CONSTRUCTIONS. Student can:	
	[4] G-8*	Identify or draw parallel or intersecting line segments.	
Statistics/Probability M 6.2	Data Display	The student understands ORGANIZATION & CLASSIFICATION OF DATA. Student can:	12-16%
	[4] S&P-1	[Design an investigation and collect*], organize, or display, using appropriate scale, data in real-world problems (e.g., social studies, friends, or school) using bar graphs, tables, charts or diagrams with whole numbers up to 25.	
	Analysis & Central Tend.	The student understands ANALYSIS & CENTRAL TENDANCY. Student can:	
	[4] S&P-2	Use information from a variety of displays (tables, bar graphs, or Venn diagrams).	
	[4] S&P-3	Use mode or range with up to 5 pieces of data with a value of 10 or less each.	
	Probability	The student understands PROBABILITY. Student can:	
	[4] S&P-4	Predict or explain the probability of all possible outcomes in a simple experiment (e.g., spinners, dice, coins).	
	[4] S&P-5	Determine possible combinations in a given situation involving up to 3 items (e.g., how many ways can you choose two fruits out of a basket containing oranges and bananas?).	
Problem Solving M 7.2	Problems Solving	The student understands PROBLEM SOLVING STRATEGIES. Student can:	Assessed
	[4] PS-1	Select & apply appropriate strategy (e.g., lists, guess & check, extended a pattern) to solve a problem.	
	[4] PS-2	Explain and verify results of an original problem and apply what was learned to new situations.	
	Communication	The student COMMUNICATES MATHEMATICAL THINKING. Student can:	Assessed

Communication M 8.2	[4] PS-3	Represent problems using mathematical language including concrete, pictorial, and/or symbolic representation; or by organizing and communicating mathematical problem-solving strategies and solutions to problems.	but not separately reported
Reasoning M 9.2	Reasoning	The student uses LOGIC & REASONING to solve mathematical problems. Student can:	
	[4] PS-4	Draw conclusions about mathematical problems (given a rule or generalization, determining whether the example fits) or justify answers and mathematical strategies.	
Connections M 10.2	Connections	The student CONNECTS & APPLIES MATHEMATICAL CONCEPTS. Student can:	
	[4] PS-5	Understand & apply mathematical skills & processes in real-world contexts such as social studies, friends, and school.	