

Strand	Standards Reference *Assessed Locally	Grade 5: MATH Grade Level Expectations	SBA Emphasis
Numeration <u>M 1.2</u>	Understanding Numbers	The student understands WHOLE NUMBERS, POSITIVE FRACTIONS, MIXED NUMBERS, & BENCHMARK PERCENTS. Student can:	22-26%
	[5] N-1	Read, write, order, and [count*] numbers to millions.	
	[5] N-2	Identify place value positions from tenths to millions.	
	[5] N-3	Convert between whole numbers expressed in expanded notation and standard form.	
	[5] N-4	Model, identify, describe with explanations, or illustrate equal parts of a whole, a region, or a set.	
	[5] N-5	Model, identify, describe with explanations, or illustrate equivalent fractions or mixed numbers of positive fractions with denominators 1 through 12 and 100 with proper and mixed numbers and benchmark percents (10%, 25%, 50%, 75%, 100%).	
	Understanding Operations	The student understands MATHEMATICAL OPERATIONS. Student can:	
	[5] N-6	[Use models, explanations, number lines, or real life situations*], describe, or illustrate the processes of division and its relationship to subtraction or to multiplication.	
	[5] N-7	[Use models, explanations, number lines, or real life situations*], describe, or illustrate the process of adding and subtracting proper fractions or mixed numbers (like denominators).	
	[5] N-8	[Use models, explanations, number lines, or real life situations*], describe, or illustrate the process of adding or subtracting decimals that represent money.	
	Number Theory	The student understands NUMBER THEORY. Using manipulatives or models, student can:	
[5] N-9	Describe or illustrate commutative or identity properties of addition or multiplication using models or explanations.		
[5] N-10	Identify or list factors and multiples common to a pair or set of numbers.		
Measurement <u>M 2.2</u>	Measurable Attributes	The student understands MEASURABLE ATTRIBUTES. Student can:	12-16%
	[5] MEA-1*	Estimate length to the nearest one-fourth inch or centimeter.	
	[5] MEA-2*	Estimate temperature (degree Celsius or Fahrenheit, plus or minus 5 degrees) or weight (half-pound or kilograms) to the nearest unit.	
	[5] MEA-3	Identify or use equivalent measures for weight/mass (16 oz. = 1 pound or 1000 grams = 1 kilogram), length (1000 millimeters = 1 meter), or time.	
	Measurement Techniques	The student understands MEASUREMENT TECHNIQUES. Student can:	
	[5] MEA-4*	Measure temperature or weight using appropriate tools.	
	[5] MEA-5	Tell time using analog clock to the nearest minute and using AM or PM.	
	[5] MEA-6	Determine possible combinations of coins and bills equal to given amounts.	
	[5] MEA-7*	Simulate multiple purchases and calculate the amount of change from a given bills up to \$100.00.	
[5] MEA-8	Measure length to the nearest ¼ inch or centimeter.		
Estimation & Computation <u>M 3.2</u>	Estimation	The student understands ESTIMATION. Student can:	18-22%
	[5] 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 addition or subtraction computations from tenths to 100,000, including money, or simple multiplication or division.	
	Computation	The student understands COMPUTATION. Student can:	
	[5] E&C-2*	Recall basic multiplication facts, products to 144, and corresponding division facts efficiently.	
	[5] E&C-3	Add or subtract four-digit whole numbers, fractions with like denominators to 12, or decimals involving money.	
[5] E&C-4	Multiply two-digit numbers by two-digit numbers or divide three-digit whole numbers by single-digit numbers.		
	Patterns & Functions	The student understands PATTERNS & FUNCTIONS. Student can:	
		Extend patterns that use addition, subtraction, multiplication, division, or symbols, up to 10	

Functions & Relationships M 4.2	[5] F&R-1	terms, represented by models (function machines), tables, sequences, or in problem situations.	12-16%
	[5] F&R-2	Use rules to express the generalization of a pattern using words, lists, or tables.	
	[5] F&R-3	Identify or apply addition or subtraction patterns to find missing values in a function.	
	[5] F&R-4*	Use manipulatives, including a calculator, as tools when describing, extending, or representing a number sequence.	
	Equations/Inequalities	The student understands EQUATIONS & INEQUALITIES. Student can:	
	[5] F&R-5	Use an open number sentence (addition, subtraction, multiplication, or division) to solve for an unknown represented by a box or circle (e.g., $256 \div \bigcirc = 8$, $\bigcirc \div 8 = 56$, $36 \div 3 = \bigcirc$).	
Geometry M 5.2	Geometric Relationships	The student understands GEOMETRIC RELATIONSHIPS. Student can:	12-16%
	[5] G-1	Use the attributes and properties of angles and the number, length, and orientation of sides to identify or compare triangles (scalene, isosceles, or equilateral) or quadrilaterals (parallelograms, trapezoids, rhombi).	
	[5] 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, cones, rectangular prisms, spheres, pyramids) (e.g., boxes, buildings, packages).	
	Shapes	The student understands SIMILARITY, CONGRUENCE, SYMMETRY, & TRANSFORMATION OF SHAPES. Student can:	
	[5] G-3	Illustrate or identify the results of transformations (slides, turns, or flips of polygons) (e.g., pictures of cultural art, fabric designs, architecture, logos).	
	[5] G-4	Identify, create, or draw geometric figures that are congruent, similar, or symmetrical.	
	[5] G-5*	Model designs (e.g., tessellations) that contain a series of slides, flips, and/or turns.	
	Perimeter & Area	The student understands PERIMETER, AREA, VOLUME, & SURFACE AREA. Student can:	
	[5] G-6	Estimate or determine area or perimeter of rectangles using a key, ruler, or given measures.	
	[5] G-7*	Estimate or determine the area and circumference of a circle using a grid or manipulatives.	
	Position & Direction	The student understands POSITION & DIRECTION. Using manipulatives or models, student can:	
	[5] G-8*	Locate points of given coordinates on a grid or identify coordinates for a given point (e.g., items on a treasure map).	
Statistics/Probability M 6.2	Data Display	The student understands ORGANIZATION & CLASSIFICATION OF DATA. Student can:	12-16%
	[5] 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, diagrams, or line graphs with whole numbers up to 50.	
	Analysis & Central Tend.	The student understands ANALYSIS & CENTRAL TENDANCY. Student can:	
	[5] S&P-2	Use information from a variety of displays (tables, bar graphs, line graphs, or Venn diagrams).	
	[5] S&P-3	Use mode, median, or range with up to 10 pieces of data with a value of 10 or less each.	
	Probability	The student understands PROBABILITY. Student can:	
	[5] S&P-4	Predict or explain the probability of all possible outcomes in an experiment using ratios or fractions to describe the probability.	
	[5] S&P-5	Solve or identify solutions to problems involving money combinations (e.g., how many ways can you make 25 cents using nickels, dimes, or quarters?).	
Problem Solving M 7.2	Problems Solving	The student understands PROBLEM SOLVING STRATEGIES. Student can:	
	[5] PS-1	Select & apply an appropriate strategy (e.g., tables, charts, lists, or graphs; guess & check, extended patterns, make a model) to solve a problem and verify results.	
	[5] 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:	

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