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Florida's B.E.S.T. Standards Mathematics correlated to *Moving with Math-by-Topic 2nd Edition* Level C Grade 6

		C1 Numeration & Problem Solving with Whole Numbers Student Book and Skill Builders (SB)	C2 Fractions, Decimals & Percents Student Book and Skill Builders (SB)	C3 Geometry & Measurement Student Book and Skill Builders (SB)
	NUMBER SENSE AND OPERATIONS			
MA.6.NSO.1	**Extend knowledge of numbers to negative numbers and develop an understanding of absolute value.**			
MA.6.NSO.1.1	Extend previous understanding of numbers to define rational numbers. Plot, order and compare rational numbers.	77, 78		
MA.6.NSO.1.2	Given a mathematical or real-world context, represent quantities that have opposite direction using rational numbers. Compare them on a number line and explain the meaning of zero within its context. *Example: Jasmine is on a cruise and is going on a scuba diving excursion. Her elevations of 10 feet above sea level and 8 feet below sea level can be compared on a number line, where 0 represents sea level.*	78		
MA.6.NSO.1.3	Given a mathematical or real-world context, interpret the absolute value of a number as the distance from zero on a number line. Find the absolute value of rational numbers.			
MA.6.NSO.1.4	Solve mathematical and real-world problems involving absolute value, including the comparison of absolute value. *Example: Michael has a lemonade stand which costs $10 to start up. If he makes $5 the first day, he can determine whether he made a profit so far by comparing |–10| and |5|.*			
MA.6.NSO.2	**Add, subtract, multiply and divide positive rational numbers.**			
MA.6.NSO.2.1	Multiply and divide positive multi-digit numbers with decimals to the thousandths, including using a standard algorithm with procedural fluency.		81-89, 93, 94 **SB:** 27-1 to 27-3, 28-1 to 28-3	
MA.6.NSO.2.2	Extend previous understanding of multiplication and division to compute products and quotients of positive fractions by positive fractions, including mixed numbers, with procedural fluency.		48, 49, 52-55 **SB:** 19-1 to 19-3, 20-1 to 20-3	
MA.6.NSO.2.3	Solve multi-step real-world problems involving any of the four operations with positive multi-digit decimals or positive fractions, including mixed numbers.		47, 49-51, 56-58, 80, 90, 91, 92, 94 **SB:** 15-1, 15-3 to 15-5, 16-1, 16-2, 16-4, 18-1, 18-2, 26-1, 26-2, 27-1, 28-1, 28-2, 45-9 to 45-12, 45-14	60, 63, 64 **SB:** 45-12

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MA.6.NSO.3	**Apply properties of operations to rewrite numbers in equivalent forms.**			
MA.6.NSO.3.1	Given a mathematical or real-world context, find the greatest common factor and least common multiple of two whole numbers. *Example: Middleton Middle School's band has an upcoming winter concert which will have several performances. The bandleader would like to divide the students into concert groups with the same number of flute players, the same number of clarinet players and the same number of violin players in each group. There are a total of 15 students who play the flute, 27 students who play the clarinet and 12 students who play the violin. How many separate groups can be formed?* *Example: Adam works out every 8 days and Susan works out every 12 days. If both Adam and Susan work out today, how many days until they work out on the same day again?*	17	22, 40, 41 **SB:** 12-5, 17-4	
MA.6.NSO.3.2	Rewrite the sum of two composite whole numbers having a common factor, as a common factor multiplied by the sum of two whole numbers.			
MA.6.NSO.3.3	Evaluate positive rational numbers and integers with natural number exponents.			
MA.6.NSO.3.4	Express composite whole numbers as a product of prime factors with natural number exponents.	20		
MA.6.NSO.3.5	Rewrite positive rational numbers in different but equivalent forms including fractions, terminating decimals and percentages. *Example: The number 1 5/8 can be written equivalently as 1.625 or 162.5%.*		76, 95, 97, 98 **SB:** 25-1 to 25-3, 30-1 to 30-3	
MA.6.NSO.4	**Extend understanding of operations with integers.**			
MA.6.NSO.4.1	Apply and extend previous understandings of operations with whole numbers to add and subtract integers with procedural fluency.			
MA.6.NSO.4.2	Apply and extend previous understandings of operations with whole numbers to multiply and divide integers with procedural fluency.			
	ALGEBRAIC REASONING			
MA.6.AR.1	**Apply previous understanding of arithmetic expressions to algebraic expressions.**			
MA.6.AR.1.1	Given a mathematical or real-world context, translate written descriptions into algebraic expressions and translate algebraic expressions into written descriptions. *Example: The algebraic expression 7.2x – 20 can be used to describe the daily profit of a company who makes $7.20 per product sold with daily expenses of $20.*			

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MA.6.AR.1.2	Translate a real-world written description into an algebraic inequality in the form of $x > a$, $x < a$, $x \geq a$ or $x \leq a$. Represent the inequality on a number line. *Example: Mrs. Anna told her class that they will get a pizza if the class has an average of at least 83 out of 100 correct questions on the semester exam. The inequality $g \geq 83$ can be used to represent the situation where students receive a pizza and the inequality $g < 83$ can be used to represent the situation where students do not receive a pizza.*			
MA.6.AR.1.3	Evaluate algebraic expressions using substitution and order of operations. *Example: Evaluate the expression $2a^2 - b/5$, where $a = -1$ and $b = 15$.*			
MA.6.AR.1.4	Apply the properties of operations to generate equivalent algebraic expressions with integer coefficients. *Example: The expression $5(3x + 1)$ can be rewritten equivalently as $15x + 5$.* *Example: If the expression $2x + 3x$ represents the profit the cheerleading team can make when selling the same number of cupcakes, sold for $2 each, and brownies, sold for $3 each. The expression $5x$ can express the total profit*			
MA.6.AR.2	**Develop an understanding for solving equations and inequalities. Write and solve one-step equations in one variable.**			
MA.6.AR.2.1	Given an equation or inequality and a specified set of integer values, determine which values make the equation or inequality true or false. *Example: Determine which of the following values make the inequality $x + 1 < 2$ true: $-4, -2, 0, 1$.*			
MA.6.AR.2.2	Write and solve one-step equations in one variable within a mathematical or real-world context using addition and subtraction, where all terms and solutions are integers. *Example: The equations $-35 + x = 17$, $17 = -35 + x$ and $17 - x = -35$ can represent the question "How many units to the right is 17 from -35 on the number line?"*			
MA.6.AR.2.3	Write and solve one-step equations in one variable within a mathematical or real-world context using multiplication and division, where all terms and solutions are integers.			
MA.6.AR.2.4	Determine the unknown decimal or fraction in an equation involving any of the four operations, relating three numbers, with the unknown in any position. *Example: Given the equation $9/8 = x - 1/8$, x can be determined to be $10/8$ because $10/8$ is $1/8$ more than $9/8$.*			
MA.6.AR.3	**Understand ratio and unit rate concepts and use them to solve problems.**			
MA.6.AR.3.1	Given a real-world context, write and interpret ratios to show the relative sizes of two quantities using appropriate notation: a/b, a to b, or a: b where $b \neq 0$.			

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MA.6.AR.3.2	Given a real-world context, determine a rate for a ratio of quantities with different units. Calculate and interpret the corresponding unit rate. *Example: Tamika can read 500 words in 3 minutes. Her reading rate can be described as 500 words/3 minutes which is equivalent to the unit rate of 166 2/3 words per minute.*			88, 90, 91 **SB:** 45-11, 45-12	59 **SB:** 45-11
MA.6.AR.3.3	Extend previous understanding of fractions and numerical patterns to generate or complete a two- or three-column table to display equivalent part-to-part ratios and part-to-part-to-whole ratios. *Example: The table below expresses the relationship between the number of ounces of yellow and blue paints used to create a new color. Determine the ratios and complete the table.* Yellow (part) 1.5 3 9 Bue (part) 2 4 New color (whole) 12 21				
MA.6.AR.3.4	Apply ratio relationships to solve mathematical and real-world problems involving percentages using the relationship between two quantities. *Example: Gerald is trying to gain muscle and needs to consume more protein every day. If he has a protein shake that contain 32 grams and the entire shake is 340 grams, what percentage of the entire shake is protein? What is the ratio between grams of protein and grams of non-protein?*				
MA.6.AR.3.5	Solve mathematical and real-world problems involving ratios, rates and unit rates, including comparisons, mixtures, ratios of lengths and conversions within the same measurement system.			26, 27	
	GEOMETRIC REASONING				
MA.6.GR.1	**Apply previous understanding of the coordinate plane to solve problems**				
MA.6.GR.1.1	Extend previous understanding of the coordinate plane to plot rational number ordered pairs in all four quadrants and on both axes. Identify the *x* - or *y* -axis as the line of reflection when two ordered pairs have an opposite *x* - or *y* -coordinate.		77		
MA.6.GR.1.2	Find distances between ordered pairs, limited to the same x-coordinate or the same y-coordinate, represented on the coordinate plane.				
MA.6.GR.1.3	Solve mathematical and real-world problems by plotting points on a coordinate plane, including finding the perimeter or area of a rectangle.				
MA.6.GR.2	**Model and solve problems involving two-dimensional figures and threedimensional figures.**				
MA.6.GR.2.1	Derive a formula for the area of a right triangle using a rectangle. Apply a formula to find the area of a triangle.				
MA.6.GR.2.2	Solve mathematical and real-world problems involving the area of quadrilaterals and composite figures by decomposing them into triangles or rectangles.				

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MA.6.GR.2.3	Solve mathematical and real-world problems involving the volume of right rectangular prisms with positive rational number edge lengths using a visual model and a formula.			47-49 SB: 39-1 to 39-3
MA.6.GR.2.4	Given a mathematical or real-world context, find the surface area of right rectangular prisms and right rectangular pyramids using the figure's net.			
	DATA ANALYSIS AND PROBABILITY			
MA.6.DP.1	**Develop an understanding of statistics and determine measures of center and measures of variability. Summarize statistical distributions graphically and numerically.**			
MA.6.DP.1.1	Recognize and formulate a statistical question that would generate numerical data. *Example: The question "How many minutes did you spend on mathematics homework last night?" can be used to generate numerical data in one variable.*	59 **SB:** 47-3		65
MA.6.DP.1.2	Given a numerical data set within a real-world context, find and interpret mean, median, mode and range. *Example: The data set {15, 0, 32, 24, 0, 17, 42, 0, 29, 120, 0, 20}, collected based on minutes spent on homework, has a mode of 0.*	59 **SB:** 46-1, 46-2, 47-3		
MA.6.DP.1.3	Given a box plot within a real-world context, determine the minimum, the lower quartile, the median, the upper quartile and the maximum. Use this summary of the data to describe the spread and distribution of the data. *Example: The middle 50% of the population can be determined by finding the interval between the upper quartile and the lower quartile.*			
MA.6.DP.1.4	Given a histogram or line plot within a real-world context, qualitatively describe and interpret the spread and distribution of the data, including any symmetry, skewness, gaps, clusters, outliers and the range.			
MA.6.DP.1.5	Create box plots and histograms to represent sets of numerical data within realworld contexts. *Example: The numerical data set {15, 0, 32, 24, 0, 17, 42, 0, 29, 120, 0, 20}, collected based on minutes spent on homework, can be represented graphically using a box plot.*			
MA.6.DP.1.6	Given a real-world scenario, determine and describe how changes in data values impact measures of center and variation.			