Math Teachers Press, Inc.

4850 Park Glen Road, Minneapolis, MN 55416
phone (800) 852-2435   fax (952) 546-7502

SOUTH CAROLINA ACADEMIC STANDARDS FOR MATHEMATICS CORRELATED TO *MOVING WITH MATH EXTENSIONS GRADE 6*

		Student Book	Skill Builders
	MATHEMATICAL PROCESSES		
6-1:	**The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representations.**		
6-1.1	Generate and solve complex abstract problems that involve modeling physical, social, and/or mathematical phenomena.	14	
6-1.2	Evaluate conjectures and pose follow-up questions to prove or disprove conjectures.	63	
6-1.3	Use inductive and deductive reasoning to formulate mathematical arguments.	4	
6-1.4	Understand equivalent symbolic expression as distinct symbolic forms that represent the same relationship.	40	
6-1.5	Generalize mathematical statements based on inductive and deductive reasoning.	4	
6-1.6	Use correct and clearly written or spoken words, variables, and notations to communicate about significant mathematical tasks.	17	
6-1.7	Generalize connections among a variety of representational forms and real-world situations.	2	
6-1.8	Use standard and nonstandard representations to convey and support mathematical relationships.	23	
	NUMBER AND OPERATION		
6-2:	**The student will demonstrate through the mathematical processes an understanding of the concepts of whole-number percentages, integers, and ratio and rate; the addition and subtraction of fractions; accurate, efficient, and generalizable methods of multiplying and dividing fractions and decimals; and the use of exponential notation to represent whole numbers.**		
6-2.1	Understand whole-number percentages through 100.		29-1

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6-2.2	Understand integers.				
6-2.3	Compare rational numbers and whole-number percentages through 100 by using the symbols $\leq$, $\geq$, <, >, and =.		25, 38		
6-2.4	Apply an algorithm to add and subtract fractions.		27, 30		15-1, 17-1, 17-2,
6-2.5	Generate strategies to multiply and divide fractions and decimals.		32-34, 44-48		19-1, 19-2, 20-1, 27-1, 27-2, 28-1, 28-2
6-2.6	Understand the relationship between ratio/rate and multiplication/division.				
6-2.7	Apply strategies and procedures to determine values of powers of 10, up to 10^6.				
6-2.8	Represent the prime factorization of numbers by using exponents.				
6-2.9	Represent whole numbers in exponential form.				
	ALGEBRA				
6-3:	The student will demonstrate through the mathematical processes an understanding of writing, interpreting, and using mathematical expressions, equations, and inequalities.				
6-3.1	Analyze numeric and algebraic patterns and pattern relationships.				44-1
6-3.2	Apply order of operations to simplify whole-number expressions.				
6-3.3	Represent algebraic relationships with variables in expressions, simple equations, and simple inequalities.				
6-3.4	Use the commutative, associative, and distributive properties to show that two expressions are equivalent.		4		5-1, 5-2
6-3.5	Use inverse operations to solve one-step equations that have whole-number solutions and variables with whole number coefficients.				
	GEOMETRY				
6-4:	The student will demonstrate through the mathematical processes an understanding of shape, location, and movement within a coordinate system; similarity, complementary, and supplementary angles; and the relationship between line and rotational symmetry.				

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6-4.1	Represent with ordered pairs of integers the location of points in a coordinate grid.	61		
6-4.2	Apply strategies and procedures to find the coordinates of the missing vertex of a square, rectangle, or right triangle when given the coordinates of the polygon's other vertices.			
6-4.3	Generalize the relationship between line symmetry and rotational symmetry for two-dimensional shapes.			
6-4.4	Construct two-dimensional shapes with line or rotational symmetry.			
6-4.5	Identify the transformation(s) used to move a polygon from one location to another in the coordinate plane.			
6-4.6	Explain how transformations affect the location of the original polygon in the coordinate plane.			
6-4.7	Compare the angles, side lengths, and perimeters of similar shapes.			
6-4.8	Classify shapes as similar.			
6-4.9	Classify pairs of angles as either complementary or supplementary.			
	MEASUREMENT			
6-5:	The student will demonstrate through the mathematical processes an understanding of surface area; the perimeter and area of irregular shapes; the relationships among the circumference, diameter, and radius of a circle; the use of proportions to determine unit rates; and the use of scale to determine distance.			
6-5.1	Explain the relationships among the circumference, diameter, and radius of a circle.	54		35-1
6-5.2	Apply strategies and formulas with an approximation if *pi* (3.14 or 22/7) to find the circumference and area of a circle.			
6-5.3	Generate strategies to determine the surface area of a rectangular prism and a cylinder.			
6-5.4	Apply strategies and procedures to estimate the perimeters and areas of irregular shapes.	56, 57		
6-5.5	Apply strategies and procedures of combining and subdividing to find the perimeters and areas of irregular shapes.			

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6-5.6	Use proportions to determine unit rates.				
6-5.7	Use a scale to determine distance.				
	DATA ANALYSIS AND PROBABILITY				
6-6:	**The student will demonstrate through the mathematical processes an understanding of the relationships within one population or sample.**				
6-6.1	Predict the characteristics of one population based on the analysis of sample data.				
6-6.2	Organize data in frequency tables, histograms, or stem-and-leaf plots as appropriate.				
6-6.3	Analyze which measure of central tendency (mean, median, or mode) is the most appropriate for a given purpose.				
6-6.4	Use theoretical probability to determine the sample space and probability for one- and two-stage events such as tree diagrams, models, lists, charts, and pictures.				47-2
6-6.5	Apply procedures to calculate the probability of complementary events.				