Math Teachers Press, Inc.
4850 Park Glen Road, Minneapolis, MN 55416
phone (800) 852-2435 fax (952) 546-7502

Arizona Mathematics Standards Correlated to *Moving with Math Intermediate/Middle (IM) Grade 6*

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
	STRAND 1: NUMBER AND OPERATIONS			
	Concept 1: Number Sense			
PO.1	Convert between expressions for positive rational numbers, including fractions, decimals, percents, and ratios.		42-47, 67-70, 72, 75 **SB:** 21-1 to 21-3, 22-1, 23-1, 23-2, 23-4, 29-1, 29-2, 30-1 to 30-5, 48-3, 53-1, 53-2, 53-4, 57-3, 57-4	
PO.2	Use prime factorization to			
•	express a whole number as a product of its prime factors and	14, 15, 18 **SB:** 4-1 to 4-3, 4-5		
•	determine the greatest common factor and least common multiple of two whole numbers.	13 **SB:** 4-6	11, 18 **SB:** 13-4	
PO.3	Demonstrate an understanding of fractions as rates, division of whole umbers, parts of a whole, part of a set, and locations on a real number line.		2-5, 10 **SB:** 11-1 to 11-6	
PO.4	Compare and order integers; and positive fractions, decimals, and percents.	63-67 **SB:** 59-3	10, 11, 49-51, 67, 68 **SB:** 13-1, 13-2, 13-5, 24-1 to 24-4	
PO.5	Express that a number's distance from zero on the number line is its absolute value.	67 **SB:** 59-4		

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
PO.6	Express the inverse relationships between exponents and roots for perfect squares and cubes.	16, 17 **SB:** 4-4		
	Concept 2: Numerical Operations			
PO.1	Apply and interpret the concepts of addition and subtraction with integers using models.	68-71 **SB:** 56-1, 56-2, 59-5 to 59-7		
PO.2	Multiply multi-digit decimals through thousandths.		57-60, 63 **SB:** 27-1 to 27-6	
PO.3	Divide multi-digit whole numbers and decimals by decimal divisors with and without remainders.		61-63 **SB:** 28-1 to 28-7	
PO.4	Multiply and divide fractions.		28-34 **SB:** 19-1 to 19-5, 20-1 to 20-5	
PO.5	Provide a mathematical argument to explain operations with two or more fractions or decimals.		14, 19, 21, 22, 25, 28, 29, 31, 32, 54, 56, 57, 59, 60, 62 **SB:** 20-5	
PO.6	Apply the commutative, associative, distributive, and identity properties to evaluate numerical expressions involving whole numbers.	19-21 **SB:** 5-1 to 5-3, 5-5		
PO.7	Simplify numerical expressions (involving fractions, decimals, and exponents) using the order of operations with or without grouping symbols.	22 **SB:** 5-4, 5-6, 5-8	36, 66 **SB:** 45-13	
	Concept 3: Estimation			
PO.1	Use benchmarks as meaningful points of comparison for rational numbers.		24 **SB:** 13-3	
PO.2	Make estimates appropriate to a given situation and verify the reasonableness of the results.	27, 28, 51-53 **SB:** 45-7 to 45-9, 49-1, 49-2, 50-1 to 50-3	24-27, 35, 36, 65, 66 **SB:** 13-3, 18-3, 18-4, 45-3, 45-5, 45-8 to 45-11	**SB:** 49-1, 50-1

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
	STRAND 2: DATA ANALYSIS, PROBABILITY, AND DISCRETE MATHEMATICS			
	Concept 1: Data Analysis (Statistics)			
PO.1	Solve problems by selecting, constructing, and interpreting displays of data, including histograms, and stem-and-leaf plots.	58, 61, 62 **SB:** 46-5	74-78 **SB:** 57-2, 57-3	67-76 **SB:** 47-1 to 47-6, 48-1 to 48-5
PO.2	Formulate and answer questions by interpreting, analyzing, and drawing inferences from displays of data including histograms and stem-and-leaf plots.	58, 61, 62 **SB:** 46-5	74-78 **SB:** 57-2, 57-3	67-76 **SB:** 47-1 to 47-6, 48-1 to 48-5
PO.3	Use extreme values, mean, median, mode, and range to analyze and describe the distribution of a given data set.	59, 60, 62 **SB:** 46-1 to 46-4		65 **SB:** 46-1
PO.4	Compare two or more sets of data by identifying trends.	62		70, 72
	Concept 2: Probability			
PO.1	Use data collected from multiple trials of a single event to form a conjecture about the theoretical probability.		75 **SB:** 57-3	
PO.2	Use theoretical probability to			
•	predict experimental outcomes,		75 **SB:** 57-3	
•	compare the outcome of the experiment to the prediction, and		75 **SB:** 57-3	
•	replicate the experiment and compare results.		75 **SB:** 57-3	
PO.3	Determine all possible outcomes (sample space) of a given situation using a systematic approach.		74 **SB:** 57-2	
	Concept 3: Systematic Listing and Counting			

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
PO.1	Build and explore tree diagrams where items repeat.		76 **SB:** 58-2	
PO.2	Explore counting problems with Venn diagrams using three attributes.			
	Concept 4: Vertex-Edge Graphs			
PO.1	Investigate4 properties of vertex-edge graphs			
•	Hamilton paths,			
•	Hamilton circuits,			
•	shortest route.			
PO.2	Solve problems related to Hamilton paths and circuits.			
	STRAND 3: PATTERNS, ALGEBRA, AND FUNCTIONS			
	Concept 1: Patterns			
PO.1	Recognize, describe, create, and analyze a numerical sequence involving fractions and decimals using all four basic operations.		11, 49-51, 60, 61, 63 **SB:** 24-1 to 24-4, 27-4, 28-3, 28-7	
	Concept 2: Functions and Relationships			
PO.1	Recognize and describe a relationship between two quantities, given by a chart, table or graph, using words and expressions.	76-78 **SB:** 44-4, 44-5		
	Concept 3: Algebraic Representations			
PO.1	Use an algebraic expression to represent a quantity in a given context.	50, 70 **SB:** 56-1, 56-4, 56-5	32 **SB:** 56-1	

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
PO.2	Create and solve two-step equations that can be solved using inverse properties with fractions and decimals.		36, 66 **SB:** 45-7 to 45-9, 45-13, 56-1	
PO.3	Translate both ways between a verbal description and an algebraic expression or equation.	50, 70-72 **SB:** 56-1 to 56-5	32, 36, 66 **SB:** 45-7 to 45-9, 45-13, 56-1	
PO.4	Evaluate an expression involving the four basic operations by substituting given fractions and decimals for the variable.		32, 36, 66 SB: 45-7 to 45-9, 45-13	
	Concept 4: Analysis of Change			
PO.1	Determine a pattern to predict missing values on a line graph or scatterplot.	78 **SB:** 44-4		74 **SB:** 44-5
	STRAND 4: GEOMETRY AND MEASUREMENT			
	Concept 1: Geometric Properties			
PO.1	Define π (pi) as the ratio between the circumference and diameter of a circle and explain the relationship among the diameter, radius, and circumference.			13, 14 **SB:** 35-1, 35-2
PO.2	Solve problems using properties of supplementary, complementary, and vertical angles.			23, 24 **SB:** 54-1
	Concept 2: Transformation of Shapes			
PO.1	Identify a simple translation or reflection and model its effect on a 2-dimensional figure on a coordinate plane using all four quadrants.			20 **SB:** 60-4
PO.2	Draw a reflection of a polygon in the coordinate plane using a horizontal or vertical line of reflection.			20 **SB:** 60-4

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
	Concept 3: Coordinate Geometry			
PO.1	Graph ordered pairs in any quadrant of the coordinate plane.	77, 78 **SB:** 43-1, 44-4		15, 16 **SB:** 43-1
PO.2	State the missing coordinate of a given figure on the coordinate plane using geometric properties to justify the solution.	78 **SB:** 44-4		
	Concept 4: Measurement			
PO.1	Determine the appropriate unit of measure for a given context and the appropriate tool to measure to the needed precision (including length, capacity, angles, time, and mass).			6, 28-30, 32, 34-37, 41, 43-45, 49, 54 **SB:** 36-1 to 36-5, 37-1 to 37-3, 38-4, 38-5, 38-9, 38-13, 39-4, 40-1 to 40-4, 41-1, 41-2, 42-1, 42-2, 45-5
PO.2	Solve problems involving conversion within the U.S. Customary and within the metric system.			31, 33-36, 38, 39 **SB:** 36-4, 36-6, 41-1, 41-2, 42-1, 42-2, 45-1 to 45-5
PO.3	Estimate the measure of objects using a scale drawing or map.			60, 61 **SB:** 52-4, 52-5
PO.4	Solve problems involving the area of simple polygons using formulas for rectangles or triangles.			46-48 **SB:** 38-6, 38-7, 38-10
PO.5	Solve problems involving area and perimeter of regular and irregular polygons.			40-51 **SB:** 38-1 to 38-11, 38-13
PO.6	Describe the relationship between the volume of a figure and the area of its base.			53 **SB:** 39-2, 39-3, 39-5
	STRAND 5: STRUCTURE AND LOGIC			
	Concept 1: Algorithms and Algorithmic Thinking			

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
PO.1	Analyze algorithms for multiplying and dividing fractions and decimals using the associative, commutative, and distributive properties.		36, 61, 62, 65	
PO.2	Create and justify an algorithm to determine the area of a given compound figure using parallelograms and triangles.			49 **SB:** 38-5
	Concept 2: Logic, Reasoning, Problem Solving, and Proof			
PO.1	Analyze a problem situation to determine the question(s) to be answered.	29, 30, 49, 53, 54 **SB:** 10-4, 45-5, 45-7, 45-8	26, 27, 36, 56, 65	39
PO.2	Identify relevant, missing, and extraneous information related to the solution to a problem.	**SB:** 45-9 to 45-11		
PO.3	Analyze and compare mathematical strategies for efficient problem solving; select and use one or more strategies to solve a problem.	53, 54 **SB:** 45-7, 45-8, 45-14		
PO.4	Apply a previously used problem solving strategy in a new context.	53, 54 **SB:** 45-7, 45-8, 45-14		
PO.5	Represent a problem situation using multiple representations, describe the process used to solve the problem, and verify the reasonableness of the solution.	49, 53-56 **SB:** 9-3, 10-4, 45-2, 45-4, 45-7 to 45-14, 45-16		
PO.6	Communicate the answer(s) to the question(s) in a problem using appropriate representations, including symbols and informal and formal mathematical language.	53, 54, 56 **SB:** 45-2, 45-4, 45-8 to 45-14	26, 27, 34, 54-56, 64-66 **SB:** 26-2 to 26-4, 45-1 to 45-3, 45-5, 45-7 to 45-10, 45-12 to 45-14	38, 39 **SB:** 45-2 to 45-4
PO.7	Isolate and organize mathematical information taken from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.			66, 68-76 **SB:** 44-4, 44-5, 47-1 to 47-3, 47-5, 47-6, 48-1 to 48-3

		IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB)	IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB)	IM3 *Geometry, Measurement & Graphing* Student Book Skill Builders (SB)
PO.8	Make and test conjectures based on information collected from explorations and experiments.		75, 78 **SB:** 57-3, 57-4, 58-2, 58-4	
PO.9	Solve simple logic problems, including conditional statements, and justify solution methods and reasoning.	57 **SB:** 45-3, 45-17	35 **SB:** 45-1, 45-4	