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Arizona Mathematics Standards Correlated to *Moving with Math Intermediate/Middle (IM) Grade 5*

		IM1 <i>Number, Reasoning & Data</i> Student Book Skill Builders (SB)	IM2 <i>Fractions, Decimals & Percent</i> Student Book Skill Builders (SB)	IM3 <i>Geometry, Measurement & Graphing</i> Student Book Skill Builders (SB)
STRAND 1: NUMBER AND				
Concept 1: Number Sense				
PO.1	Determine equivalence by converting between benchmark fractions, decimals, and percents.		50, 67-72 SB: 29-1 to 29-3, 30-1 to 30-5	
PO.2	Differentiate between prime and composite numbers; differentiate between factors and multiples for whole numbers.	13-15 SB: 4-1, 4-2, 4-6		
PO.3	Locate integers on a number line.	63-67 SB: 59-1 to 59-4		
PO.4	Compare and order positive fractions, decimals, and percents.		49-51, 67-69 SB: 24-1 to 24-4, 29-1 to 29-3, 30-1 to 30-3, 30-5	
PO.5	Use ratios and unit rates to model, describe and extend problems in context.			56-64 SB: 52-1 to 52-6
PO.6	Express or interpret positive and negative numbers in context.	63-67 SB: 59-1 to 59-3		
Concept 2: Numerical Operations				
PO.1	Add and subtract decimals through thousandths and fractions expressing solutions in simplest form.		14-27 SB: 13-4, 15-1 to 15-3, 16-1 to 16-4, 17-1 to 17-4, 18-1 to 18-4	
PO.2	Multiply multi-digit whole numbers.	31-38 SB: 8-1 to 8-7		

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PO.3	Divide multi-digit whole numbers by whole number divisors with and without remainders.	39-48 SB: 9-1 to 9-5, 10-1 to 10-7		
PO.4	Apply the associative, commutative, and distributive properties to solve numerical problems.	19-21 SB: 5-1 to 5-3, 5-5		
PO.5	simplify numerical expressions (including fractions and decimals) 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	Make estimates appropriate to a given situation or computation with whole numbers, fractions, and decimals.	27, 28, 51-53 SB: 45-7 to 45-9, 49-1, 49-2, 50-1 to 50-3	24-27, 35, 36, 56, 65, 66 SB: 18-3, 18-4, 45-3, 45-5, 45-8 to 45-11	
	STRAND 2: DATA ANALYSIS, PROBABILITY, AND DISCRETE MATHEMATICS			
	Concept 1: Data Analysis (Statistics)			
PO.1	Collect, record, organize, and display data using multi-bar graphs or double line graphs.			69, 70, 72, 73 SB: 47-2, 47-5, 47-6, 48-2, 48-3
PO.2	Formulate and answer questions by interpreting and analyzing displays of data, including multi-bar graphs or double line graphs.			69, 70, 72, 73 SB: 47-2, 47-5, 47-6, 48-2, 48-3
PO.3	Use mean, median, mode, and range to analyze and describe the distribution of a given data set.	59-62 SB: 46-1 to 46-5		65 SB: 46-1
	Concept 2: Probability			
PO.1	Describe the theoretical probability of events and represent the probability as a fraction, decimal, or percent.		73-75 SB: 57-1 to 57-5	

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PO.2	Explore probability when performing experiments by			
	<ul style="list-style-type: none"> predicting the outcome, 		75 SB: 57-3	
	<ul style="list-style-type: none"> recording the data, 		73-75 SB: 57-1 to 57-4	
	<ul style="list-style-type: none"> comparing outcomes of the experiment to predictions, and 		75 SB: 57-3	
	<ul style="list-style-type: none"> comparing the results of multiple repetitions of the experiment. 		75 SB: 57-3	
	Concept 3: Systematic Listing and Counting			
PO.1	Analyze relationships among representations and make connections to the multiplication principle of counting.		76-78 SB: 58-1 to 58-4	
PO.2	Solve a variety of counting problems and explain the multiplication principle of counting.		76-78 SB: 58-1 to 58-4	
	Concept 4: Vertex-Edge Graphs			
PO.1	Investigate properties of vertex-edge graphs			
	<ul style="list-style-type: none"> Euler paths 			
	<ul style="list-style-type: none"> Euler circuits, and 			
	<ul style="list-style-type: none"> degree of vertex 			
PO.2	Solve problems related to Euler 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 addition and subtraction.		11, 49-51 SB: 24-1 to 24-4	

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	Concept 2: Functions and Relationships			
	No performance objectives at this grade level.			
	Concept 3: Algebraic Representation			
PO.1	Create and solve two-step equations that can be solved using inverse operations with whole numbers.	71, 72 SB: 56-2, 56-3		
	Concept 4: Analysis of Change			
PO.1	Describe patterns of change including constant rate and increasing or decreasing rate.			59 SB: 52-3
	STRAND 4: GEOMETRY AND MEASUREMENT			
	Concept 1: Geometric Properties			
PO.1	Draw and label 2-dimensional figures given specific attributes including angle measure and side length.			3, 6-8 SB: 32-3, 32-4, 37-1, 37-2
PO.2	Solve problems by understanding and applying the property that the sum of the interior angles of a triangle is 180° .			
PO.3	Classify quadrilaterals by their properties.			9 SB: 34-4, 34-5
PO.4	Compare attributes of 2-dimensional figures with 3-dimensional figures by drawing and constructing nets and models			55 SB: 39-6
	Concept 2: Transformation of Shapes			
	No performance objectives at this grade level.			

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	Concept 3: Coordinate Geometry			
	No performance objectives at this grade level.			
	Concept 4: Measurement			
PO.1	Solve problems using elapsed time.			28
PO.2	State an appropriate measure and degree of accuracy in a given context.			34-37 SB: 41-1, 41-2, 42-2
PO.3	Measure angles between 0 and 360 degrees.			5, 6 SB: 33-1, 37-1 to 37-3
PO.4	Solve problems involving the area of 2-dimensional figures by using the properties of parallelograms and triangles.			43, 44, 46-48 SB: 38-4, 38-6, 38-7, 38-10
PO.5	Solve problems involving area and perimeter of regular and irregular polygons using reallocation of square units.			45, 49 SB: 38-5, 38-9
	STRAND 5: STRUCTURE AND LOGIC			
	Concept 1: Algorithms and Algorithmic Thinking			
PO.1	Analyze common algorithms for adding and subtracting fractions and decimals using the associative, commutative, and distributive properties.		14-16, 18, 20, 22, 23 SB: 13-4, 15-1 to 15-3, 16-1, 16-2, 17-2, 18-1	
PO.2	Develop an algorithm or formula to calculate areas and perimeters of simple polygons.			42, 46-48 SB: 38-3, 38-6, 38-7, 38-10
	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: 45-5, 45-7, 45-8, 10-4	26, 27, 36, 56, 65	39

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PO.2	Identify relevant, missing, and extraneous information related to the solution to a problem.	SB: 45-9 to 45-11		
PO.3	Select and use one or more strategies to efficiently solve the problem and justify the selection.	29, 53, 54 SB: 45-1, 45-5, 45-7 to 45-11, 45-13, 45-14		
PO.4	Determine whether a problem to be solved is similar to previously solved problems, and identify possible strategies for solving the problem.	53, 54 SB: 45-7, 45-8		
PO.5	Represent a problem situation using any combination of words, numbers, pictures, physical objects, or symbols.	53, 54, 56-58 SB: 45-3, 45-4, 45-6 to 45-8, 45-12, 45-14 to 45-16		
PO.6	Summarize mathematical information, explain reasoning, and draw conclusions.	49, 54-56, 58 SB: 10-4	26, 27, 36, 56, 64-66 SB: 45-11	
PO.7	Analyze and evaluate whether a solution is reasonable, is mathematical correct, and answers the question.	29, 49, 53, 56	26, 27, 36, 56, 65, 66 SB: 45-3, 45-5	
PO.8	Make and test conjectures based on data or information collected from explorations and experiments.	61		
PO.9	Identify simple valid arguments using <i>if...then</i> statements based on graphic organizers.			
PO.10	Construct <i>if...then</i> statements to generalize rules for computation, geometric properties and algebraic functions.			