Math Teachers Press, Inc.

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NEVADA MATHEMATICS STANDARDS CORRELATED TO *MOVING WITH MATH®- MATH-BY-TOPIC LEVEL B (Grade 4)*

		Student Book	Skill Builders
1.0	NUMBER, NUMBER SENSE, AND COMPUTATION		
	Students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.		
	Place Value		
1.4.1	Identify and use place value positions of whole numbers to one million.	BI: 3-9, 20, 21, 26, 28, 29	1-1 to 1-3, 6-1 to 6-6
	Fractions		
1.4.2	Identify fractions and compare fractions with like denominators using models, drawings, and numbers.	BIII: 3, 4, 6-18	30-1 to 30-3, 31-1, 31-2
	Comparing and Ordering		
1.4.3	Read, write, compare and order whole numbers.	BI: 5-7, 9-13, 19, 23, 25, 28-31, 33	2-1 to 2-4, 4-1, 4-2, 5-1
•	Read and write number words.	BI: 26, 27, 32, 33	4-1, 4-2, 5-1
	Counting		
1.4.4	Count by multiples of a given number.	BI: 14-16, 22	3-1
•	Explain relationships between skip counting, repeated addition, and multiples.	BII: 3-5, 10-13	3-1, 20-1, 20-3, 20-5
	Facts		
1.4.5	Immediately recall and use multiplication and corresponding division facts (products to 144).	BII: 9-11, 15, 17-19, 34-36, 51, 52, 56, 57	20-4, 20-6, 20-7, 25-5, 25-7, 25-9
	Estimating and Estimation Strategies		
1.4.6	Estimate to determine the reasonableness of an answer in mathematical and practical situations.	BI: 70, 73 BII: 61, 74	28-1, 28-3

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	Computation		
1.4.7	Add and subtract multi-digit numbers.	BI: 43-62, 75-79	10-1 to 10-7, 11-1, 12-1 to 12-3, 13-1, 13-2, 15-1 to 15-7, 16-1, 16-2, 17-1 to 17-3, 18-1, 18-2
•	Multiply and divide multi-digit numbers by a one-digit whole number with regrouping, including monetary amounts as decimals	BII: 19-27, 30-33	21-1 to 21-8, 25-3 to 25-9, 26-1 to 26-4, 27-1 to 27-5, 28-1 to 28-3
	Solving Problems and Number Theory		
1.4.8	Generate and solve addition, subtraction, multiplication and division problems using whole numbers in practical situations.	BI: 43-69, 74-79 BII: 3-11, 13-28, 30-39, 42-51, 54, 57-59, 65-68, 70-77, 79	9-1, 9-2, 10-1 to 10-7, 11-1, 12-1 to 12-3, 13-1, 13-2, 15-1 to 15-7, 16-1, 16-2, 17-1 to 17-3, 18-1, 18-2, 20-1 to 20-7, 21-1 to 21-8, 22-1, 22-2, 23-1 to 23-3, 25-1 to 25-9, 26-1 to 26-4, 27-1 to 27-5, 28-1 to 28-3, 47-1, 47-2, 48-1, 48-2,
2.0	**PATTERNS, FUNCTIONS AND ALGEBRA**		
	Students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.		
	Patterns		
2.4.1	Identify, describe, and represent patterns and relationships in the number system, including arithmetic and geometric sequences.	BI: 14-16, 22 BII: 5, 11-13	3-1, 6-4, 20-5
	Variables and Unknown		
2.4.2	Model, explain, and solve open number sentences involving addition, subtraction, multiplication, and division.		49-7
•	Select the solution to an equation from a given set of numbers.	BII: 51	4-1, 11-1, 12-2, 13-2, 17-2, 23-3, 27-5, 28-1, 31-2,

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	Number sentences, Expressions, and Polynomials		
2.4.3	Complete number sentences with the appropriate words and symbols (+, -, x, ÷, >, <, =).	**BI:** 11 **BII:** 77	2-3, 14-1, 15-7, 19-1, 24-1, 29-1, 49-2
3.0	MEASUREMENT		
	Students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.		
	Comparison, Estimation and Conversion		
3.4.1	Estimate and convert units of measure for length, area, and weight within the same measurement system (customary and metric).	**BIII:** 51, 52, 54-57, 59	44-1, 44-2, 45-1, 45-2
•	Estimate temperature in practical situations.	**BIII:** 46	42-2
	Precision in Measurements		
3.4.2	Measure length, area, temperature, and weight to a required degree of accuracy in customary and metric systems.	**BIII:** 48-50	42-3, 43-1 to 43-4
	Formulas		
3.4.3	Define and determine the perimeter of polygons and the area of rectangles, including squares.	**BIII:** 61-67	20-2, 46-1, 46-2
	Money		
3.4.4	Determine totals for monetary amounts in practical situations.	**BIII:** 68, 69	47-1, 47-2
•	Use money notation to add and subtract given monetary amounts.	**BIII:** 68-70	47-1, 47-2
	Time		
3.4.6	Use A.M. and P.M. appropriately in describing time.		41-3
•	Use elapsed time in quarter-hour increments, beginning on the quarter-hour, to determine start, end, and elapsed time.	**BIII:** 44, 45	41-3
•	Recognize the number of weeks in a year, days in a year, and days in a month.	**BIII:** 47	42-1
4.0	SPATIAL RELATIONSHIPS, GEOMETRY AND LOGIC		
	Students will identify, represent, verify, and apply spatial relationships and geometric properties to solve problems, communicate, and make connections within and beyond the field of mathematics.		
	Two-Dimensional Shapes		

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4.4.1	Identify, draw, and classify angles, including straight, right, obtuse, and acute.	BIII: 34	
	Congruence, Similarity, and Transformations		
4.4.2	Identify shapes that are congruent, similar, and/or symmetrical using a variety of methods including transformational motions.	BIII: 38, 39	39-1
	Coordinate Geometry and Lines of Symmetry		
4.4.3	Identify coordinates for a given point in the first quadrant.	BII: 78	
•	Locate points of given coordinates on a grid in the first quadrant.	BII: 78	
	Three-Dimensional Figures		
4.4.4	Identify, describe, and classify two- and three-dimensional figure by relevant properties including the number of vertices, edges, and faces using models.	BIII: 33, 40, 41	40-1, 40-2
	Lines, Angles, and Their Properties		
4.4.6	Identify, draw, label, and describe points, line segments, rays, and angles.	BIII: 32, 34-37	35-1, 35-2, 36-1, 37-1
	Logic		
4.4.9	Use the connectors, and, or, and not to describe the members of a set.		
5.0	DATA ANALYSIS		
	Students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.		
	Data Collection and Organization		
5.4.1	Pose questions that can be used to guide the collection of categorical and numerical data.	BIII: 74	50-1, 50-2
•	Organize and represent data using a variety of graphical representations including frequency tables and line plots.	BIII: 72-75, 79	50-1 to 50-4
	Central Tendency and Data Distribution		
5.4.2	Model and compute range.		
•	Model the measures of central tendency for mode and median.		
	Interpretation of Data		

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5.4.3	Interpret data and make predictions using frequency tables and line plots.	BIII: 72, 73	50-1 to 50-4
	Experimental and Theoretical Probability		
5.4.5	Conduct simple probability experiments using concrete materials.	BIII: 76-79	50-3, 50-4
•	Represent the results of simple probability experiments as fractions to make predictions about future events.	BIII: 79	50-3, 50-4
	PROBLEM SOLVING		
	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts in order to:		
	- Formulate their own problems		
	- find solutions to problems from everyday situations		
	- Develop and apply strategies to solve a variety of problems		
	- Integrate mathematical reasoning, communication and connections		
•	Generalize and apply previous experiences and strategies to new problem solving situations.	BI: 54	20-1, 20-2, 25-1, 25-2
•	Determine an efficient strategy, verify, interpret, and evaluate the results with respect to the original problem.	BI: 64	
•	Try more than one strategy when the first strategy proves to be unproductive	BII: 33, 79	
•	Interpret and solve a variety of mathematical problems by paraphrasing	BI: 64	
•	Identify necessary and extraneous information.	BI: 65	
•	Check the reasonableness of a solution.	BI: 64	
•	Use technology, including calculator, to develop mathematical concepts.	BI: 49 BII: 53	
	MATHEMATICAL COMMUNICATIONS		
	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing in order to:		
	- Translate information into mathematical language and symbols		
	- Process information mathematically		
	- Present results in written, oral, and visual formats		
	- Discuss and exchange ideas about mathematics as a part of learning		

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	- Read a variety of fiction and nonfiction texts to learn about mathematics		
	- Use mathematical notation to communicate and explain problems		
•	Use inquiry techniques to solve mathematical problems.	BI: 64, 65	50-1, 50-2
•	Use a variety of methods to represent and communicate mathematical ideas through oral, verbal, and written formats.	BIII: 6, 8	4-1, 4-2,15-5 to 15-7, 29-1
•	Identify and translate key words and phrases that imply mathematical operations.	BI: 64, 66-68	10-5, 14-1, 29-1
•	Use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems.	BI: 40	10-1, 10-5, 29-1
	MATHEMATICAL REASONING		
	Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas in order to;		
	- Reinforce and extend their logical reasoning abilities		
	- Reflect on, clarify, and justify their thinking		
	- Ask questions to extend their thinking		
	- Use patterns and relationships to analyze mathematical situations.		
	- Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems		
•	Draw logical conclusions about mathematical problems.	BIII: 19	
•	Follow a logical argument and judge its validity.	BIII: 19	
•	Review and refine the assumptions and steps used to derive conclusions in mathematical arguments.	BIII: 19	
•	Justify and explain the solutions to problems using manipulatives and physical needs.	manipulatives used throughout	
	MATHEMATICAL CONNECTIONS		
	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole in order to:		
	- Link new concepts to prior knowledge		
	- Identify relationships between content strands		
	- Integrate mathematics with other disciplines		
	- Allow the flexibility to approach problems in a variety of ways within and beyond the field of mathematics		
•	Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics	BIII: 14	

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•	Use physical models to explain the relationship between concepts and procedures.	**BII:** 7, 54		
•	Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science.	**BIII:** 65, 67		
•	Identify, explain, and use mathematics in everyday life.	**BII:** 55 **BIII:** 52		10-5, 15-5, 47-1, 47-2, 48-2