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

NEVADA 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)
1.0	**NUMBER, NUMBER SENSE, AND COMPUTATION**			
	The 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			
1.6.1	Identify and use place value positions to thousandths.	2,4 **SB:** 1-1 to 1-3	45 **SB:** 23-1	**SB:** 23-1
	Fractions			
1.6.2	Add and subtract fractions with unlike denominators.		19, 20 **SB:** 17-1 to 17-3	**SB:** 17-1
•	Multiply and divide with fractions using models, drawings, and numbers.		28, 29, 33 **SB:** 19-1 to 19-5, 20-4, 20-5	**SB:** 19-1, 20-1
•	Use models to translate among fractions, decimals, and percents.		67-70 **SB:** 25-4, 29-2	**SB:** 25-1, 30-1
	Comparing and Ordering			
1.6.3	Read, write, compare, and order groups of fractions, groups of decimals, and groups of percents.		10, 11, 49-51 **SB:** 13-1, 13-2, 13-5, 24-1, 24-2	**SB:** 13-1, 24-1
	Facts			
1.6.5	identify equivalent expressions between and among fractions, decimals, and percents.		**SB:** 12-3, 29-2	
	Estimating and Estimation Strategies			

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1.6.6	Estimate using fractions, decimals, and percents.		12, 24, 56, 65 **SB:** 18-3, 18-4	
•	Use estimation strategies in mathematical and practical situations.	27, 28, 51, 52 **SB:** 49-1, 49-2, 50-1 to 50-3	56 **SB:** 45-3, 45-5, 45-6, 45-8, 45-9	**SB:** 10-1
	Computation			
1.6.7	Calculate using fractions, decimals, and percents in mathematical and practical situations.		14-17, 19-23, 26-34, 54-65, 68-72 **SB:** 19-2, 19-3, 19-5, 26-2 to 26-4, 29-3, 45-9, 53-1, 53-2	
•	Use order of operations to evaluate expressions with integers.	**SB:** 5-6, 5-8		
	Solving Problems and Number Theory			
1.6.8	Use the concepts of number theory, including prime and composite numbers, factors, multiples, and the rules of divisibility to solve problems.	13, 14, 18 **SB:** 4-2, 4-3, 4-6	8, 18 **SB:** 4-2, 4-3, 12-2, 13-4	**SB:** 4-1
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 situation to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.			
	Patterns			
2.6.1	Use and create tables and charts to extend a pattern in order to describe a rule for input/output tables and to find missing terms in a sequence.	73-76 **SB:** 44-1, 44-5	**SB:** 44-1	22
	Variables and Unknowns			
2.6.2	Evaluate formulas and algebraic expressions using whole number values.	71, 72 **SB:** 56-2, 56-3		42, 46, 47 **SB:** 56-2

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•	Solve and graphically represent equations and simple inequalities in one variable.	78		
	Number Sentences, Expressions, and Polynomials			
2.6.3	Write simple expressions and equations using variables to represent mathematical situations.	70, 71 **SB:** 56-1, 56-4, 56-5	**SB:** 56-1	**SB:** 56-1
	Relations and Functions			
2.6.4	When given a rule relating two variables, create a table and represent the ordered pairs on a coordinate plane.	78 **SB:** 44-4		74 **SB:** 44-5
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			
3.6.1	Estimate and compare corresponding units of measure for temperature, length, and weight/mass between customary and metric systems.			29 **SB:** 40-4
	Precision in Measurements			
3.6.2	Given two measurements of the same object, select the one that is more precise.			
•	Explain how the size of the unit of measure used effects precision.			
	Formulas			
3.6.3	Select, model, and apply formulas to find the perimeter, circumference, and area of plane figures.			42, 46-50 **SB:** 38-3, 38-6, 38-12
	Money			

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3.6.4	Compare and use unit cost in practical situations.		64	59
	Ratios and Proportions			
3.6.5	Write and apply ratios in mathematical and practical problems involving measurement and monetary conversions.		9	56, 59 **SB:** 44-2, 52-1
	Time			
3.6.6	Use equivalent periods of time to solve practical problems.			**SB:** 40-2, 40-3
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			
4.6.1	Measure angles using a protractor.			6 **SB:** 37-2
•	Identify, classify, compare and draw regular and irregular quadrilaterals.			9 **SB:** 34-4, 34-5
•	Identify, draw, and use central angles to represent fractions of a circle.			
	Congruence, Similarity, and Transformations			
4.6.2	Determine actual measurements represented on scale drawings.			60, 61 **SB:** 52-4, 52-5
•	Convert actual measurements to scale.			
	Coordinate Geometry and Lines of Symmetry			
4.6.3	Using a coordinate plane, identify and locate points.	77	**SB:** 43-1	15,16 **SB:** 43-1
•	Graph coordinates representing geometric shapes in all four quadrants on a coordinate plane.			
	Three-Dimensional Figures			

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4.6.4	Make a model of a three-dimensional prism from a two-dimensional drawing.			12 (T.G.) **SB:** 34-7
•	Make a two-dimensional drawing of a three-dimensional prism.			**SB:** 39-1
	Algebraic Connections			
4.6.5	Model slope (pitch, angle of inclination) using concrete objects and practical examples.			
	Lines, Angles, and Their Properties			
4.6.6	Draw, identify, and find measures of complementary and supplementary angles using arithmetic and geometric methods.			23
	Triangles			
4.6.7	Determine the measure of missing angles of triangles based on the Triangle Sum Theorem.			25, 26 **SB:** 55-1
	Construction			
4.6.8	Construct circles, angles, and triangles based on given measurements using a variety of methods and tools including compass, straight edge, paper folding, and technology.			
	Logic			
4.6.9	Identify counter examples to disprove a conditional statement.			
5.0	DATA ANALYSIS			
	Students will collect, organize, display, 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			
5.6.1	Pose questions that guide the collection of data.	61 **SB:** 46-5		66 **SB:** 46-1

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•	Organize and represent data using a variety of graphical representations including circle graphs and scatter plots			66
	Central Tendency and Data Distribution			
5.6.2	Select and apply the measures of central tendency to describe data.	60, 61 **SB:** 46-1 to 46-4		65 **SB:** 46-1
	Interpretation of Data			
5.6.3	Analyze the effect a change of graph type has on the interpretation of a set of data.			
•	Interpret data and make predictions using circle graphs and scatter plots		37, 38 **SB:** 48-2	
	Permutations and Combinations			
5.6.4	Find the number of outcomes for a specific event by constructing sample spaces and tree diagrams.		76, 77 **SB:** 57-2, 57-3, 58-2	**SB:** 58-1
	Experimental and Theoretical Probability			
5.6.5	Find experimental probability using concrete materials.		75 **SB:** 57-1, 57-2	
•	Represent the results of simple probability experiments as fractions, decimals, percents, and ratios to make predictions about future events		73-75 **SB:** 57-1 to 57-3	**SB:** 57-1
	Statistical Inferences			
5.6.6	Analyze various representations of a set of data to draw conclusions and make predictions.			
•	Describe the limitations of various graphical representations.			76
	PROBLEM SOLVING			

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	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 solutions and apply previous knowledge to new problem solving situations.	22-25	13, 14 **SB:** 7-1	49, 58
•	Determine an efficient strategy, verify, interpret, and evaluate the results with respect to the original problem.	29 **SB:** 45-4	26, 27	39
•	Apply problem solving strategies until a solution is found or it is clear that no solution exists.	**SB:** 45-7		
•	Interpret and solve a variety of mathematical problems by paraphrasing.	29 **SB:** 45-7		
•	Identify necessary and extraneous information.	29 **SB:** 45-7, 45-9, 45-11	**SB:** 45-7	39 (T.G.)
•	Check the reasonableness of a solution.	29 **SB:** 45-8	26, 27	
•	Apply technology as a tool in problem solving situations.	**SB:** 44-6, 50-3	63	
	MATHEMATICAL COMMUNICATION			
	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			

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	- Process information mathematically			
	- Present results in written, oral and visual formats.			
	- Discuss and exchange ideas about mathematics as a part of learning			
	- Read a variety of fiction and nonfiction texts to learn about mathematics			
	- Use mathematical notation to communicate and explain problems.			
•	Use formulas, algorithms, inquiry, and other techniques to solve mathematical problems.	throughout	throughout	throughout
•	Evaluate written and oral presentations in mathematics	throughout	throughout	throughout
•	Identify and translate key words and phrases that imply mathematical operations.	23-25	20, 27	39
•	Model and explain mathematical relationships using oral, written, graphic, and algebraic methods.	throughout	throughout	throughout
•	Use everyday language, both orally and in writing, to communicate strategies an solutions to mathematical problems.	throughout	throughout	throughout
	Mathematical Reasoning			
	Students will develop their ability to reason mathematical 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			

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	- Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems			
•	Recognize and apply deductive and inductive reasoning.	73-75 (T.G.)		
•	Review and refine the assumptions and steps used to derive conclusions in mathematical arguments.			22 (T.G.)
•	Justify answers and the steps taken to solve problems with and without manipulatives and physical models.	throughout	throughout	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	15	5, 8, 13	38
•	Use manipulatives and physical models to explain the relationships between concepts and procedures.	throughout	throughout	throughout
•	Use the connections among mathematical topics to develop multiple approaches to problems.	12, 40 **SB:** 45-8	14, 71 **SB:** 12-9	
•	Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science.	7 **SB:** 45-5, 45-13	63	60, 61

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•	Identify, explain, and apply mathematics in everyday life.	**SB:** 45-9	**SB:** 24-3	4, 29