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

CKP 6/06

IDAHO ACHIEVEMENT STANDARDS CORRELATED TO *MOVING WITH MATH® EXTENSIONS GRADE 8*

		Student Book	Skill Builders
	STANDARD 1: NUMBER AND OPERATION		
	Goal 1.1: Understand and use numbers.		
	By the end of 8th Grade, the student will be able to:		
8.M.1.1.1	Compare magnitudes and relative magnitudes of rational numbers, including integers, fractions, decimals, percents, and absolute values. (337.01.a)		
8.M.1.1.2	Use rational numbers, including percents and ratios, and π (pi) to solve problems. (337.01.b)	60	39-1
8.M.1.1.3	Locate the position of rational numbers and positive real numbers on a number line. (337.01.e)	17, 68	
8.M.1.1.4	Convert between standard form, scientific notation, and exponential form. (337.01.c)	5	57-1, 57-2
8.M.1.1.5	Apply number theory concepts (primes, composites, prime factorization, LCM, GCF). (337.01.d)	4, 6	3-1
8.M.1.1.6	Recognize pertinent information for problem solving	9-11, 25	9-1, 24-1, 26-2, 27-1, 28-1, 43-1 to 43-3
8.M.1.1.7	Apply integers in one- and two-step common real-world situations.	9-11, 25	9-1, 24-1, 26-2, 27-1, 28-1, 43-1 to 43-3
8.M.1.1.8	Use appropriate vocabulary.	Glossary and vocabulary words in lessons	11-1
	Goal 1.2: Perform computations accurately.		
	By the end of 8th Grade, the student will be able to:		
8.M.1.2.1	Recall the common equivalent fractions, decimals, and percents of halves, thirds, fourths, fifths, and tenths. (337.02.b)	18, 29, 34	11-3, 20-1, 20-2, 25-1, 25-2, 51-1

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8.M.1.2.2	Add, subtract, multiply, and divide rational numbers. (337.02.a)	7, 12, 19-24, 30-32, 71-74	1-1, 7-1, 8-1, 10-1, 12-1, 12-2, 13-1, 13-2, 14-1, 15-1, 16-1, 17-1, 21-1, 22-1, 23-1, 23-2, 58-1 to 58-4
8.M.1.2.3	Evaluate numerical expressions with whole number exponents. (337.02.d)	5	6-1, 6-2
8.M.1.2.4	Evaluate numerical expressions with rational numbers using the order of operations. (337.02.c)		59-1
8.M.1.2.5	Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three. (337.02.e)	7, 12, 19-24, 30-32, 71-74	1-1, 7-1, 8-1, 10-1, 12-1, 12-2, 13-1, 13-2, 14-1, 15-1, 16-1, 17-1, 21-1, 22-1, 23-1, 23-2, 58-1 to 58-4
8.M.1.2.6	Use a variety of strategies including common mathematical formulas to compute problems drawn from real life situations. (338.01.a)	9-11, 25	9-1, 24-1, 26-2, 27-1, 28-1, 43-1 to 43-3
8.M.1.2.7	Use appropriate vocabulary and notations. (337.02.f)	Glossary and vocabulary words in lessons	
	Goal 1.3: Estimate and judge reasonableness of results.		
	By the end of 8th Grade, the student will be able to:		
8.M.1.3.1	Estimate to predict computation results. (337.03.a)	2, 28, 37	5-1, 19-1, 19-2, 44-1
8.M.1.3.2	Identify when estimation is appropriate and apply to problem solving situations. (337.03.b)		
8.M.1.3.3	Identify whether a given estimate is an overestimate or underestimate. (337.03.c)	10	43-2
8.M.1.3.4	Use a four-function calculator to solve complex grade-level problems.		
8.M.1.3.5	Formulate conjectures and justify (short of formal proof) why they must be or seem to be true. (338.02.c)		
8.M.1.3.6	use appropriate vocabulary and notations. (337.03.d)	Glossary and vocabulary words in lessons	

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	STANDARD 2: CONCEPTS AND PRINCIPLES OF MEASUREMENT.		
	Goal 2.1: Understand and use customary and metric measurements.		
	By the end of 8th Grade, the student will be able to:		
8.M.2.1.1	Select and use appropriate units and tools to make formal measurements in both systems. (339.01.a)		34-1, 36-1
8.M.2.1.2	Apply estimation of measurement to real-world and content problems using standard measuring devices. (339.01.b)		34-1, 36-1
8.M.2.1.3	Compare the differences and relationships among measures of perimeter, area, and volume (capacity) within both systems. (339.01.c)	58, 65, 66	38-1, 39-1, 40-1, 41-1, 41-2
8.M.2.1.4	Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, and the volume and surface area of rectangular prisms. (341.01.e)	58-64,66	38-1, 39-1, 40-1, 55-1, 55-2, 56-1
8.M.2.1.5	Convert units of measurement within each system in problem solving situations. (339.01.e)	56, 57	35-1, 37-1, 37-2
8.M.2.1.6	Solve problems involving area of circles and the perimeter and area of rectangles and triangles. (339.01.d)	58-64,66	38-1, 39-1, 40-1, 55-1, 55-2, 56-1
8.M.2.1.7	Use appropriate vocabulary and notations. (339.01.f)	Glossary and vocabulary words in lessons	
	Goal 2.2: Apply the concepts of rates, ratios, and proportions.		
	By the end of 8th Grade, the student will be able to:		
8.M.2.2.1	Use rates, proportions, ratios, and map scales in problem-solving situations. (339.03.a)	33, 35, 36, 38, 40	26-1, 26-2, 27-1, 28-1, 46-1 to 46-3
8.M.2.2.2	Determine unit rates in real-world situations.	33	
	Goal 2.3: Apply dimensional analysis.		
8.M.2.3.1	Illustrate the interrelationship of measurement units through dimensional analysis conversions. (339.04.a)	56, 57	35-1, 37-1, 37-2
	STANDARD 3: CONCEPTS AND LANGUAGE OF ALGEBRA AND FUNCTIONS		

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	Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.		
	By the end of 8th Grade, the student will be able to:		
8.M.3.1.1	Use variables in expressions, equations, and inequalities. (340.01.a)	75-80	50-1 to 50-3
8.M.3.1.2	Translate simple word statements and story problems into algebraic expressions and equations. (340.01.b)	25, 75-80	50-1 to 50-3
8.M.3.1.3	Use symbols "<," ">," "=," "≠," "≤," and "≥" to express relationships. (340.01.c)		
	Goal 3.2: Evaluate algebraic expressions.		
	By the end of 8th Grade, the student will be able to:		
8.M.3.2.1	Use and apply the following properties in evaluating algebraic expressions: commutative, associative, identity, zero, inverse, distributive and substitution. (340.02.a)	3	2-1, 2-2
8.M.3.2.2	Use the order of operations in evaluating simple algebraic expressions. (340.02.b)		
8.M.3.2.3	Simplify algebraic expressions. (340.02.c)		50-1 to 50-3
	Goal 3.3: Solve algebraic equations and inequalities.		
	By the end of 8th Grade, the student will be able to:		
8.M.3.3.1	Solve one- and two-step equations and inequalities. (340.03.a)	79, 80	50-1 to 50-3
8.M.3.3.2	Match graphical representations with simple linear equations. (340.03.b)	70	
	Goal 3.4: Understand the concept of functions.		
	By the end of 8th Grade, the student will be able to:		
8.M.3.4.1	Extend patterns and identify a rule (function) that generates the pattern using rational numbers. (343.01.a)	8	42-1
8.M.3.4.2	Use relationships to explain how a change in one quantity may result in a change in another, and identify the relationship as a positive, negative, or neither. (343.01.b)	T.G. p. 61	

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8.M.3.4.3	Use appropriate vocabulary and notations. (343.01.c)	Glossary and vocabulary words in lessons	
	Goal 3.5: Represent equations, inequalities and functions in a variety of formats.		
	By the end of 8th Grade, the student will be able to:		
8.M.3.5.1	Represent a set of data in a table, as a graph, and as a mathematical relationship. (343.02.a)		49-1
	Goal 3.6: Apply functions to a variety of problems.		
	By the end of 8th Grade, the student will be able to:		
8.M.3.6.1	Use patterns and functions to represent and solve problems. (343.03.a)	T.G. pp. 40, 56	42-1
	STANDARD 4: CONCEPTS AND PRINCIPLES OF GEOMETRY		
	Goal 4.1: Apply concepts of size, shape, and spatial relationships.		
	By the end of 8th Grade, the student will be able to:		
8.M.4.1.1	Describe and classify relationships among types of one-, two-, and three-dimensional geometric figures using their defining properties. (341.01.a)	41-45, 48-51, 54, 55	29-1, 30-1, 31-1, 31-2, 32-1, 52-1, 52-2, 54-1
8.M.4.1.2	Draw and measure various angles and shape using appropriate tools. (341.01.b)	41, 43, 48, 49	
8.M.4.1.3	Apply the fundamental concepts, properties, and relationships among points, lines, rays, planes, and angles. (341.01.c)	41-43, 48-51	29-1, 30-1, 33-1, 33-2, 52-1, 52-2
8.M.4.1.4	Identify and model the effects of reflections, translations, rotations, and scaling on various shapes. (341.01.g)	46	
8.M.4.1.5	Identify congruence, similarities, and line symmetry of shapes. (341.01.d)	47, 52, 53	32-1, 32-2, 53-1
8.M.4.1.6	Explain the concept of surface area and volume (capacity). (341.01.f)	T.G. p. 65	
8.M.4.1.7	Use appropriate vocabulary and notations. (341.01.h)	Glossary and vocabulary words in lessons	

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	Goal 4.2: Apply the geometry of right triangles.		
	No objectives at this grade level.		
	Goal 4.3: Apply graphing in two dimensions.		
	By the end of 8th Grade, the student will be able to:		
8.M.4.3.1	identify and plot points on a coordinate plane. (3341.03.a)	70	49-1
	STANDARD 5: DATA ANALYSIS, PROBABILITY, AND STATISTICS		
	Goal 5.1: Understand data analysis		
	By the end of 8th Grade, the student will be able to:		
8.M.5.1.1	Analyze and interpret tables, charts and graphs, including frequency tables, scatter plots, broken line graphs, line plots, bar graphs, histograms, circle graphs, and stem-and-leaf plots. (342.01.a)	15, 16	47-2
8.M.5.1.2	Explain and justify conclusions drawn from tables, charts, and graphs. (342.01.b)	15, 16	47-2
8.M.5.1.3	Use appropriate vocabulary and notations. (342.01.c)	Glossary and vocabulary words in lessons	
	Goal 5.2: Collect, organize, and display data.		
	By the end of 8th Grade, the student will be able to:		
8.M.5.2.1	Collect, organize, and display data with appropriate notation in tables, charts, and graphs, including scatter plots, broken line graphs, line plots, bars graphs, histograms, stem-and-leaf plots. (342.02.a)	14-16	47-2
	Goal 5.3: Apply simple statistical measurements.		
	By the end of 8th Grade, the student will be able to:		
8.M.5.3.1	Choose and calculate the appropriate measure of central tendency - mean, median, and mode. (342.03.a)	13	45-1, 47-1
8.M.5.3.2	Explain the significance of distribution of data, including range, frequency, gaps, and clusters. (342.03.b)	13	45-1, 47-1

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	Goal 5.4: Understand basic concepts of probability.		
	By the end of 8th Grade, the student will be able to:		
8.M.5.4.1	Model situations of probability using simulations. (342.04.a)	26	47-3
8.M.5.4.2	Recognize equally likely outcomes. (342.01.c)	26	47-3
8.M.5.4.3	Explain that probability ranges form 0% to 100% and identify a situation as having high or low probability.	26	47-3
8.M.5.4.4	Use the language of probability. (342.04.b)	26	47-3
	Goal 5.5: Make predictions or decisions based on data.		
	By the end of 8th Grade, the student will be able to:		
8.M.5.5.1	Make predictions based on experimental and theoretical probabilities. (342.05.a)	26	47-3
8.M.5.5.2	Conduct statistical experiments and interpret results, using tables, charts, or graphs. (342.05.c)	26	47-3
8.M.5.5.3	Use appropriate vocabulary and notations. (342.05.b)	26	47-3