



8th Grade Correlation to Mathematics Content Standards

	Mathematics Curriculum Framework	I CAN Learn® Lesson #	I CAN Learn® Lesson Title
NUMBER AND OPERATION			
8.M.1.1.1	Compare magnitudes and relative magnitudes of rational numbers, including integers, fractions, decimals, percents, and absolute values.	MPA-045	Comparing and Ordering Integers
		MPA-044	Finding Opposite and Absolute Values of Integers
		MM1-602	Comparing and Ordering Rational Numbers
		MPA-016	Comparing and Ordering Decimals
		MPA-031	Comparing and Ordering Fractions and Decimals
		MPA-081	Converting Fractions, Decimals, and Percents I
8.M.1.1.2	Use rational numbers, including percents and ratios, and π (pi) to solve problems.	MPA-082	Converting Fractions, Decimals, and Percents II
		MPA-083	Finding Number Given Percent and Total
		MPA-084	Finding Percent Given Number and Total
		MPA-085	Finding Total Given Number and Percent
		MPA-086	Solving Problems Using Percent
		MPA-087	Finding Percent Increase and Decrease
		MPA-126	Solving Real-World Problems Involving Sales Tax
		MPA-127	Solving Real-World Problems Involving Discounts, Markup, and Commission
		MPA-128	Solving Real-World Problems Involving Simple and Compound Interest
		MPA-110	Solving Problems Using Proportions, Scale Drawings, Models, and Maps
		MPA-079	Unit rates
		MPA-155	Comparing and Converting Rates
		MPA-070	Finding the Circumference of a Circle
8.M.1.1.3	Locate the position of rational numbers and positive real numbers on a number line.	MPA-071	Finding the Area of a Circle
		MPA-068	Finding the Area of Irregular Figures
		MPA-077	Solving Problems Using a Formula
		MPA-045	Comparing and Ordering Integers
		MPA-044	Finding Opposite and Absolute Values of Integers
		MM1-602	Comparing and Ordering Rational Numbers
8.M.1.1.4	Convert between standard form, scientific notation, and exponential form.	MPA-016	Comparing and Ordering Decimals
		MPA-031	Comparing and Ordering Fractions and Decimals
		MPA-013	Using Powers and Exponents in Expressions
8.M.1.1.5	Apply number theory concepts (primes, composites, prime factorization, LCM, GCF).	MPA-021	Converting Between Standard and Scientific Notation
		MPA-024	Using Divisibility Rules
		MPA-025	Identifying Prime and Composite Numbers

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		MPA-026	Using Prime Factorization
		MPA-027	Finding the Greatest Common Factor
		MPA-030	Finding Least Common Multiple of Two or More Numbers
8.M.1.1.6	Recognize pertinent information for problem solving.	MPA-003	Using Four-Step Plan for Problem Solving
		MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation
		MPA-042	Solving Problems Using an Equation
		MPA-007	Solving Problems Using Logical Reasoning Skills
		MPA-125	Formulating a Possible Problem Situation Given an Equation
		MPA-116	Solving Real-Life Problems by Using Guess-and-Check and Working Backwards
8.M.1.1.7	Apply integers in one- and two-step common real-world situations.	MPA-043	Reading and Writing Integers
		MPA-045	Comparing and Ordering Integers
		MPA-044	Finding Opposite and Absolute Values of Integers
8.M.1.1.8	Use appropriate vocabulary.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
8.M.1.2.1	Recall the common equivalent fractions, decimals, and percents of halves, thirds, fourths, fifths, and tenths.	MPA-081	Converting Fractions, Decimals, and Percents I
		MPA-082	Converting Fractions, Decimals, and Percents II
8.M.1.2.2	Add, subtract, multiply, and divide rational numbers.	MPA-047	Adding Integers with Like Signs
		MPA-048	Adding Integers with Unlike Signs
		MPA-050	Subtracting Integers with Unlike Signs
		MPA-051	Multiplying Integers with Like and Unlike Signs
		MPA-052	Dividing Integers with Like and Unlike Signs
		MPA-053	Adding, Subtracting, Multiplying, and Dividing Integers
		MPA-018	Adding and Subtracting Decimals
		MPA-122	Modeling Multiplication and Division of Decimals
		MPA-019	Multiplying Decimals
		MPA-020	Multiplying Decimals by Powers of Ten
		MPA-119	Dividing Decimals
		MPA-034	Adding and Subtracting Fractions
		MPA-035	Adding and Subtracting Mixed Numbers with Unlike Denominators
		MPA-123	Modeling Multiplication and Division of Fractions
		MPA-036	Multiplying Fractions and Mixed Numbers and Simplifying
		MPA-037	Dividing Fractions and Mixed Numbers and Simplifying
8.M.1.2.3	Evaluate numerical expressions with whole number exponents.	MPA-013	Using Powers and Exponents in Expressions
8.M.1.2.4	Evaluate numerical expressions with rational numbers using the order of operations.	MPA-008	Order of Operations
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.	Throughout	Standard is demonstrated throughout. For examples, see the following lessons:
		MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation
		MPA-133	Distinguishing Between Exact and Approximate Answers
8.M.1.2.6	Use a variety of strategies including common mathematical formulas to compute problems drawn from real life situations.	Throughout	Standard is demonstrated throughout. For examples, see the following lessons:
		MPA-077	Solving Problems Using a Formula
		MPA-125	Formulating a Possible Problem Situation Given an Equation
8.M.1.2.7	Use appropriate vocabulary and notations.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
8.M.1.3.1	Estimate to predict computation results.	MPA-005	Estimating Products and Quotients Using Patterns
		MPA-004	Using Rounding to Estimate
		MPA-017	Rounding Decimals and Estimating Computations Using Decimals
		MPA-033	Estimating Computations with Fractions and Mixed Numbers

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8.M.1.3.2	Identify when estimation is appropriate and apply to problem solving situations.	MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation
		MPA-133	Distinguishing Between Exact and Approximate Answers
8.M.1.3.3	Identify whether a given estimate is an overestimate or underestimate.	MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation
		MPA-133	Distinguishing Between Exact and Approximate Answers
8.M.1.3.4	Use a four-function calculator to solve complex grade-level problems.	Activity	See Journals and Problem Sets of the Day
8.M.1.3.5	Formulate conjectures and justify (short of formal proof) why they must be or seem to be true.	MPA-007	Solving Problems Using Logical Reasoning Skills
8.M.1.3.6	Use appropriate vocabulary and notations.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
CONCEPTS AND PRINCIPALS OF MEASUREMENT			
8.M.2.1.1	Select and use appropriate units and tools to make formal measurements in both systems.	MPA-130	Developing a Sense of Relative Sizes of Measures
		MPA-133	Distinguishing Between Exact and Approximate Answers
		MPA-062	Converting Units in Customary System
		MPA-061	Converting Metric Units of Length, Capacity, and Mass
		MPA-134	Calculating with Precision, Accuracy, and Significant Digits
8.M.2.1.2	Apply estimation of measurement to real-world and content problems using standard measuring devices.	MPA-130	Developing a Sense of Relative Sizes of Measures
		MPA-133	Distinguishing Between Exact and Approximate Answers
8.M.2.1.3	Compare the differences and relationships among measures of perimeter, area, and volume (capacity) within both systems.	MPA-111	Comparing Perimeters, Areas, and Volumes of Similar Geometric Figures and Solids
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.	MPA-070	Finding the Circumference of a Circle
		MPA-055	Finding the Perimeter of a Figure
		MPA-067	Finding the Area of Rectangles and Parallelograms
		MPA-069	Finding the Area of Triangles and Trapezoids
		MPA-071	Finding the Area of a Circle
		MPA-068	Finding the Area of Irregular Figures
		MPA-160	Plotting Polygons and Finding the Area
		MPA-073	Finding the Surface Area of Rectangular Prisms
		MPA-074	Finding the Surface Area of Cylinders
		MPA-075	Finding the Volume of Rectangular Prisms
		MPA-076	Finding the Volume of Cylinders
		MPA-115	Finding the Volumes of Prisms, Cylinders, Pyramids, and Cones Using Models
8.M.2.1.5	Convert units of measurement within each system in problem solving situations.	MPA-062	Converting Units in Customary System
		MPA-061	Converting Metric Units of Length, Capacity, and Mass
8.M.2.1.6	Solve problems involving area of circles and the perimeter and area of rectangles and triangles.	MPA-071	Finding the Area of a Circle
		MPA-055	Finding the Perimeter of a Figure
		MPA-067	Finding the Area of Rectangles and Parallelograms
		MPA-069	Finding the Area of Triangles and Trapezoids
		MPA-068	Finding the Area of Irregular Figures
8.M.2.1.7	Use appropriate vocabulary and notations.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
8.M.2.2.1	Use rates, proportions, ratios, and map scales in problem-solving situations.	MPA-079	Unit rates
		MPA-155	Comparing and Converting Rates
		MPA-080	Solving Proportions

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		MPA-110	Solving Problems Using Proportions, Scale Drawings, Models, and Maps
8.M.2.2.2	Determine unit rates in real-world situations.	MPA-079	Unit rates
8.M.2.3.1	Illustrate the interrelationship of measurement units through dimensional analysis conversions.	MPA-155	Comparing and Converting Rates
CONCEPTS AND PRINCIPALS OF ALGEBRA AND FUNCTIONS			
8.M.3.1.1	Use variables in expressions, equations, and inequalities.	MPA-014	Evaluating Expressions for Given Variables
		MPA-010	Solving One-Step Equations of Whole Numbers Using Addition and Subtraction
		MPA-011	Solving One-Step Equations of Whole Numbers Using Multiplication and Division
		MPA-012	Solving One-Step Equations of Whole Numbers Using All Operations
		MPA-042	Solving Problems Using an Equation
		MPA-054	Solving One-Step Equations with Integers Using all Four Operations
		MPA-040	Solving One-Step Equations with Decimals Using All Four Operations
		MPA-038	Solving One-Step Equations with Fractions Using Addition and Subtraction
		MPA-039	Solving One-Step Equations with Fractions Using Multiplication and Division
		MPA-100	Solving Two-Step Equations with Positive Coefficients
		MPA-165	Solving Two-Step Equations with Negative Coefficients
		MPA-101	Solving Two-Step Equations by Combining Like Terms
		MPA-170	Solving Two-Step Equations Using the Distributive Property
		MPA-175	Solving Equations with Variables on Both Sides
		MPA-109	Solving and Graphing Linear Inequalities on a Number Line
8.M.3.1.2	Translate simple word statements and story problems into algebraic expressions and equations.	MPA-041	Writing Simple Algebraic Expressions from Phrases
		HA1-104	Translating Word Statements into Equations
8.M.3.1.3	Use symbols $<$, $>$, \neq , \leq , and \geq to express relationships.	MPA-045	Comparing and Ordering Integers
		MPA-016	Comparing and Ordering Decimals
		MPA-031	Comparing and Ordering Fractions and Decimals
		MPA-109	Solving and Graphing Linear Inequalities on a Number Line
8.M.3.2.1	Use and apply the following properties in evaluating algebraic expressions: commutative, associative, identity, zero, inverse, distributive, and substitution.	MPA-014	Evaluating Expressions for Given Variables
		HA1-076	Basic Distributive Property
		HA1-085	Simplifying Expressions Using the Properties of Real Numbers
8.M.3.2.2	Use the order of operations in evaluating simple algebraic expressions.	HA1-060	Evaluating Numerical Expressions Using the Order of Operations
8.M.3.2.3	Simplify algebraic expressions.	HA1-075	Simplifying Algebraic Expressions by Combining Like Terms
		HA1-090	Simplifying Expressions Using the Property of -1
		HA1-080	Simplifying and Evaluating Algebraic Expressions Containing Grouping Symbols
8.M.3.3.1	Solve one- and two-step equations and inequalities.	MPA-010	Solving One-Step Equations of Whole Numbers Using Addition and Subtraction
		MPA-011	Solving One-Step Equations of Whole Numbers Using Multiplication and Division
		MPA-012	Solving One-Step Equations of Whole Numbers Using All Operations
		MPA-054	Solving One-Step Equations with Integers Using all Four Operations
		MPA-040	Solving One-Step Equations with Decimals Using All Four Operations
		MPA-038	Solving One-Step Equations with Fractions Using Addition and Subtraction
		MPA-039	Solving One-Step Equations with Fractions Using Multiplication and Division
		MPA-100	Solving Two-Step Equations with Positive Coefficients
		MPA-165	Solving Two-Step Equations with Negative Coefficients
		MPA-101	Solving Two-Step Equations by Combining Like Terms
		MPA-170	Solving Two-Step Equations Using the Distributive Property
		MPA-175	Solving Equations with Variables on Both Sides
8.M.3.3.2	Match graphical representations with simple linear equations.	MPA-102	Graphing Equations by Plotting Points
		MPA-135	Determining the Slope of a Line

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		MPA-140	Examining Linear Equations in Slope-Intercept Form
		MPA-142	Solving Problems With Linear Functions and Direct Variation
8.M.3.4.1	Extend patterns and identify a rule (function) that generates the pattern using rational numbers.	MPA-104	Recognizing Patterns
		MPA-270	Generating Algebraic Expressions from Patterns of Models
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.	MPA-102	Graphing Equations by Plotting Points
		MPA-135	Determining the Slope of a Line
		MPA-140	Examining Linear Equations in Slope-Intercept Form
		MPA-142	Solving Problems With Linear Functions and Direct Variation
8.M.3.4.3	Use appropriate vocabulary and notations.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
8.M.3.5.1	Represent a set of data in a table, as a graph, and as a mathematical relationship.	MPA-102	Graphing Equations by Plotting Points
		MPA-135	Determining the Slope of a Line (Future Release)
		MPA-140	Examining Linear Equations in Slope-Intercept Form
		MPA-142	Solving Problems With Linear Functions and Direct Variation
		MPA-150	Identifying and Graphing Linear and Nonlinear Functions
		MPA-270	Generating Algebraic Expressions from Patterns of Models
8.M.3.6.1	Use patterns and linear functions to represent and solve problems.	MPA-102	Graphing Equations by Plotting Points
		MPA-135	Determining the Slope of a Line (Future Release)
		MPA-140	Examining Linear Equations in Slope-Intercept Form
		MPA-142	Solving Problems With Linear Functions and Direct Variation
		MPA-150	Identifying and Graphing Linear and Nonlinear Functions
		MPA-270	Generating Algebraic Expressions from Patterns of Models
CONCEPTS AND PRINCIPALS OF GEOMETRY			
8.M.4.1.1	Describe and classify relationships among types of one-, two-, and three-dimensional geometric figures, using their defining properties.	MPA-072	Identifying 3-D Figures
		MPA-106	Identifying a Solid Figure From a Net
		MPA-107	Constructing Three-Dimensional Figures and Examining Their Dimensions
8.M.4.1.2	Draw and measure various angles and shapes using appropriate tools.	MPA-056	Classifying Angles (Journal and Problem Sets of the Day)
		MPA-107	Constructing Three-Dimensional Figures and Examining Their Dimensions
8.M.4.1.3	Apply the fundamental concepts, properties, and relationships among points, lines, rays, planes, and angles.	MPA-056	Classifying Angles
		MPA-057	Identifying and Applying Supplementary and Complementary Angles
		MPA-105	Determining the Measure of Angles Made by Parallel Lines and a Transversal
8.M.4.1.4	Identify and model the effects of reflections, translations, rotations, and scaling on various shapes.	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
		MPA-120	Applying Dilations in the Coordinate Plane
8.M.4.1.5	Identify congruence, similarities, and line symmetry of shapes.	MPA-180	Examining Line and Rotational Symmetry (Future release)
8.M.4.1.6	Explain the concept of surface area and volume (capacity).	MPA-073	Finding the Surface Area of Rectangular Prisms
		MPA-074	Finding the Surface Area of Cylinders
		MPA-075	Finding the Volume of Rectangular Prisms
		MPA-076	Finding the Volume of Cylinders
		MPA-106	Identifying a Solid Figure From a Net
		MPA-115	Finding the Volumes of Prisms, Cylinders, Pyramids, and Cones Using Models
8.M.4.1.7	Use appropriate vocabulary and symbols.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
8.M.4.3.1	Identify and plot points on a coordinate plane.	MPA-046	Graphing Points on a Coordinate Plane

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DATA ANALYSIS, PROBABILITY, AND STATISTICS			
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.	MPA-092	Reading and Interpreting Bar, Line, and Circle Graphs
		MPA-129	Choosing Appropriate Scales and Intervals for Data
		MPA-094	Interpreting and Constructing Line Plots
		MPA-096	Constructing Stem-and-Leaf Plots
		MPA-097	Constructing Box-and-Whisker Plots
		MPA-131	Interpreting and Creating Histograms
		MPA-132	Interpreting and Creating Scatterplots
8.M.5.1.2	Explain and justify conclusions drawn from tables, charts, and graphs.	MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-099	Recognizing Misleading Statistics and Graphs
		MPA-840	Interpreting Data
8.M.5.1.3	Use appropriate vocabulary and notations.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
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, bar graphs, histograms, and stem-and-leaf plots.	MPA-092	Reading and Interpreting Bar, Line, and Circle Graphs
		MPA-129	Choosing Appropriate Scales and Intervals for Data
		MPA-094	Interpreting and Constructing Line Plots
		MPA-096	Constructing Stem-and-Leaf Plots
		MPA-097	Constructing Box-and-Whisker Plots
		MPA-131	Interpreting and Creating Histograms
		MPA-132	Interpreting and Creating Scatterplots
8.M.5.3.1	Choose and calculate the appropriate measure of central tendency – mean, median, and mode.	MPA-095	Find the Mean, Median, and Mode
8.M.5.3.2	Explain the significance of distribution of data, including range, frequency, gaps, and clusters.	MPA-129	Choosing Appropriate Scales and Intervals for Data
		MPA-097	Constructing Box-and-Whisker Plots
8.M.5.4.1	Model situations of probability using simulations.	MPA-090	Finding the Probability of Simple Real-Life Events
		MPA-112	Constructing Sample Spaces for Compound Events (Dependent and Independent)
		MPA-113	Finding the Probability of Compound Events Through Experimentation
8.M.5.4.2	Recognize equally likely outcomes.	MPA-090	Finding the Probability of Simple Real-Life Events
		MPA-112	Constructing Sample Spaces for Compound Events (Dependent and Independent)
		MPA-113	Finding the Probability of Compound Events Through Experimentation
8.M.5.4.3	Explain that probability ranges from 0% to 100% and identify a situation as having high or low probability.	MPA-090	Finding the Probability of Simple Real-Life Events (Journal and Problem Sets of the Day)
8.M.5.4.4	Use the language of probability	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.
8.M.5.5.1	Make predictions based on experimental and theoretical probabilities.	MPA-114	Finding the Odds of Events and Experimental Probability from a Math Model
8.M.5.5.2	Conduct statistical experiments and interpret results using tables, charts, or graphs.	MPA-840	Interpreting Data
8.M.5.5.3	Use appropriate vocabulary and notations.	Throughout	Standard is demonstrated throughout. For examples, see definitions and vocabulary as listed at the end of each video on the Notebook screen.

*Indicates the benchmark standards that are assessed at the state level (ISAT).

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

Note: Standards were taken from the Grade 8 Mathematics Content Standards K-12 document adopted by the Idaho State Board of Education in February 2007.