



## Grade 8 Correlation to Content Standards 2008

	HCPS III	I CAN Learn <sup>®</sup> Lesson #	I CAN Learn <sup>®</sup> Lesson Title
<b>Number and Operations</b>			
MA.8.1.1	Identify situations represented by square roots and cube roots	MPA-064	Finding Square Roots of Perfect Squares
		MPA-065	Estimating Square Roots
		HA1-492	Simplifying Square and Cube Roots
MA.8.1.2	Compare and order rational numbers and square roots	HA1-015	Graphing Real Numbers Using a Number Line
		MPA-065	Estimating Square Roots
		MPA-124	Classifying Numbers in the Real Number System
MA.8.1.3	Use ratios and proportions to represent the relationship between two quantities	MPA-079	Unit rates
		MPA-080	Solving Proportions
MA.8.2.1	Apply the order of operations when calculating with rational numbers	MPA-008	Order of Operations
MA.8.2.2	Demonstrate the inverse relationship between square numbers and square roots, and cubes and cubed roots	MPA-064	Finding Square Roots of Perfect Squares
		MPA-065	Estimating Square Roots
		HA1-492	Simplifying Square and Cube Roots
MA.8.3.1	Add, subtract, multiply, and divide numbers with whole number exponents	HA1-810	Simplifying Expressions Using the Multiplication Properties of Exponents
MA.8.3.2	Estimate a reasonable range (i.e., upper and lower limit) for the solution to a problem	MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation
<b>Measurement</b>			
MA.8.4.1	Select and use appropriate units to measure the surface area and volume of solids	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
MA.8.4.2	Express rates of change as a ratio of two different measures, where units are included in the ratio, and use the derived rate to solve problems	MPA-155	Comparing and Converting Rates
MA.8.4.3	Use ratios and proportions to solve measurement problems	MPA-121	Identifying Similar and Congruent Polygons Using Proportions
		MPA-110	Solving Problems Using Proportions, Scale Drawings, Models, and Maps
MA.8.4.4	Use formulas to determine the surface area and volume of selected prisms, cylinders, and pyramids	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

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<b>Geometry and Spatial Sense</b>			
MA.8.5.1	Apply the Pythagorean theorem to solve problems involving right triangles	MPA-066	Solving Problems Using the Pythagorean Theorem
MA.8.6.1	Perform a transformation (reflection, rotation, translation) when given a figure and necessary parameters	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
		MPA-180	Examining Line and Rotational Symmetry
MA.8.6.2	Describe the size, position, and orientation of shapes under transformations and compositions of transformations	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
MA.8.7.1	Use two-dimensional representations of pyramids, prisms, and cylinders to solve problems involving these figures	MPA-106	Identifying a Solid Figure From a Net
MA.8.8.1	Use coordinate geometry to represent transformations in the coordinate plane	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
<b>Patterns, Functions, and Algebra</b>			
MA.8.9.1	Represent a variety of patterns (including recursive patterns) with tables, graphs (including graphing technology when available), words, and when possible, symbolic rules	MPA-270	Generating Algebraic Expressions from Patterns of Models
MA.8.9.2	Use linear relationships with two variables to solve problems	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
MA.8.9.3	Identify functions as linear or nonlinear and contrast their properties from tables, graphs (including graphing technology when available), or equations	MPA-150	Identifying and Graphing Linear and Nonlinear Functions
MA.8.10.1	Translate among tables, graphs (including graphing technology when available), and equations involving linear relationships	HA1-402	Translating Among Multiple Representations of Functions
MA.8.10.2	Solve linear equations and inequalities with two variables using algebraic methods, manipulatives, or models	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
MA.8.10.3	Use tables and graphs to represent and compare linear relationships	MPA-140	Examining Linear Equations in Slope-Intercept Form
		MPA-142	Solving Problems With Linear Functions and Direct Variation
MA.8.10.4	Use the slope of a line to describe a constant rate of change	MPA-135	Determining the Slope of a Line
<b>Data Analysis, Statistics, and Probability</b>			
MA.8.11.1	Design a study that compares two samples, collect data, and select the appropriate representation (e.g., double bar graph, back-to-back stem and leaf plot, parallel box and whisker plots, scatter plot) to compare the sets of data	MM1-400	Interpreting Double Bar Graphs
		MPA-096	Constructing Stem-and-Leaf Plots
		MPA-097	Constructing Box-and-Whisker Plots
		MPA-132	Interpreting and Creating Scatterplots
MA.8.11.2	Judge the validity of data based on the data collection method	MPA-840	Interpreting Data
MA.8.12.1	Recognize situations appropriate for scatter plots	MPA-132	Interpreting and Creating Scatterplots
MA.8.12.2	Analyze different representations of the same data to describe how representations can be used to skew a person's interpretation of the data	MPA-840	Interpreting Data
		MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-099	Recognizing Misleading Statistics and Graphs
MA.8.13.1	Make conjectures about possible relationships between two characteristics of a sample based on interpretations of scatter plots	MPA-132	Interpreting and Creating Scatterplots

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MA.8.14.1	Judge the validity of conjectures that are based on experiments or simulations	MPA-099	Recognizing Misleading Statistics and Graphs

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

HGM - Geometry (New course in development)

Note: Standards were taken from the 2007 Hawaii Content and Performance Standards for Mathematics – Grade 8 document adopted by the Hawaiian State Board of Education in 2007.