I CAN Learn®
EDUCATION SYSTEMS

Grade 8 Correlation to Mathematics Content Standards

	Oregon Content Standards	I CAN Learn® Lesson #	I CAN Learn® Lesson Title
8.1	Algebra: Analyze and represent linear functions, and solve linear equations and systems of linear equations.		
8.1.1	Translate among contextual, verbal, tabular, graphical, and algebraic representations of linear functions.	HA1-402	Translating Among Multiple Representations of Functions
		MPA-140	Examining Linear Equations in Slope-Intercept Form
8.1.2	Determine the slope of a line and understand that it is a constant rate of change.	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
		HA1-380	Graphing Linear Equations
		HA1-385	Finding the Slope of a Line from its Graph or from the Coordinates of Two Points
8.1.3	Identify and interpret the properties (i.e. slope, intercepts, continuity, and discreteness) of linear relationships as they are shown in the different representations and recognize proportional relationships (y/x = k or y = kx) as a special case.	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
		MPA-150	Identifying and Graphing Linear and Nonlinear Functions
		HA1-450	Solving Problems Involving Direct Variation
		HA1-453	Solving Problems Involving Inverse Variation
		HA1-402	Translating Among Multiple Representations of Functions
		HA1-441	Applications of Functions and Relations Involving Distance, Rate, and Time
		HA1-442	Interpreting Graphs of Functions in Real-Life Situations
8.1.4	Use linear functions and equations to represent, analyze and solve problems, and to make predictions and inferences.	MPA-142	Solving Problems With Linear Functions and Direct Variation
		MPA-132	Interpreting and Creating Scatterplots
		MPA-125	Formulating a Possible Problem Situation Given an Equation
		MPA-270	Generating Algebraic Expressions from Patterns of Models
8.1.5	Relate systems of two linear equations in two variables and their solutions to pairs of lines that are intersecting, parallel, or the same line.	HA1-455	Solving Systems of Linear Equations by Graphing
		HA1-806	Solving Systems of Linear Equations Using the Graphing Calculator
8.1.6	Use informal strategies (e.g., graphs or tables) to solve problems involving systems of linear equations in two variables	HA1-455	Solving Systems of Linear Equations by Graphing
		HA1-806	Solving Systems of Linear Equations Using the Graphing Calculator
8.2	Data Analysis, Number and Operations, and Algebra: Analyze and summarize data sets.		
8.2.1	Organize and display data (e.g., histograms, box-and-whisker plots, scatter plots) to pose and answer questions; and justify the reasonableness of the choice of display.	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

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		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
		MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-099	Recognizing Misleading Statistics and Graphs
		MPA-840	Interpreting Data
8.2.2	Use measures of center and spread to summarize and compare data sets.	HA1-540	Finding the Mean, Median, and Mode from Data and Frequency Distribution Tables
		HA1-541	Analyzing Data Using the Measures of Central Tendency and the Range
8.2.3	Interpret and analyze displays of data and descriptive statistics.	MPA-094	Interpreting and Constructing Line Plots
		MPA-131	Interpreting and Creating Histograms
		MPA-132	Interpreting and Creating Scatterplots
8.2.4	Compare descriptive statistics and evaluate how changes in data affect those statistics.	HA1-541	Analyzing Data Using the Measures of Central Tendency and the Range
8.2.5	Describe the strengths and limitations of a particular statistical measure, and justify or critique its use in a given situation.	HA1-541	Analyzing Data Using the Measures of Central Tendency and the Range
8.2.6	Use sample data to make predictions regarding a population.	MPA-840	Interpreting Data
8.2.7	Identify claims based on statistical data and evaluate the reasonableness of those claims.	MPA-840	Interpreting Data
		MPA-099	Recognizing Misleading Statistics and Graphs
8.2.8	Use data to estimate the likelihood of future events and evaluate the reasonableness of predictions.	MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
8.3	Geometry and Measurement: Analyze two- and three- dimensional spaces and figures by using distance and angle.		
8.3.1	Use properties of parallel lines, transversals, and angles to find missing sides and angles, and to solve problems including determining similarity or congruence of triangles.	MPA-105	Determining the Measure of Angles Made by Parallel Lines and a Transversal
		MPA-121	Identifying Similar and Congruent Polygons Using Proportions
8.3.2	Use models to show that the sum of the angles of any triangle is 180 degrees and apply this fact to find unknown angles.	MPA-059	Properties of Triangles and Quadrilaterals
8.3.3	Use models and logical arguments to show that the sum of the angles of any quadrilateral is 360 degrees, and apply this fact to find unknown angles.	MPA-059	Properties of Triangles and Quadrilaterals
		MPA-060	Determining Which Figures Tessellate
8.3.4	Use models to explore the validity of the Pythagorean Theorem, and use it to find missing lengths.	MPA-066	Solving Problems Using the Pythagorean Theorem
8.3.5	Apply the Pythagorean Theorem to find distances in a variety of 2- and 3-dimensional contexts, including distances on coordinate graphs.	MPA-066	Solving Problems Using the Pythagorean Theorem
		HA1-520	Finding the Distance Between Two Points on a Coordinate Plane
		HA1-876	Applying Length, Midpoint and Slope of a Segment on a Cartesian Plane
8.3.6	Use models and referents to explore and estimate square roots.	MPA-064	Finding Square Roots
		MPA-065	Estimating Square Roots
		MPA-124	Classifying Numbers in the Real Number System

MM1-Fundamentals of Mathematics
MPA- Pre-Algebra
HA1-Algebra 1
HGM - Geometry Core
Note: Standards were taken from the Oregon Mathematics Content Standards document adopted by the Oregon State Board of Education in December 2007.