



8th Grade Correlation to Mathematics Framework

	Mathematics Curriculum Framework	I CAN Learn [®] Lesson #	I CAN Learn [®] Lesson Title
	NUMBER AND NUMBER SENSE		
Focus:	Relationships within the Real Number System		
8.1	The student will		
	a) simplify numerical expressions involving positive exponents, using rational numbers, order of operations, and properties of operations with real numbers; and	MPA-013	Using Powers and Exponents in Expressions
		MPA-008	Order of Operations
		HA1-060	Evaluating Numerical Expressions Using the Order of Operations
		HA1-810	Simplifying Expressions Using the Multiplication Properties of Exponents
	b) compare and order decimals, fractions, percents, and numbers written in scientific notation.	MM1-602	Comparing and Ordering Rational Numbers
		MPA-031	Comparing and Ordering Fractions and Decimals
		MPA-016	Comparing and Ordering Decimals
		MPA-021	Converting Between Standard and Scientific Notation (Journal)
8.2	The student will describe orally and in writing the relationships between the subsets of the real number system.	MPA-124	Classifying Numbers in the Real Number System
	COMPUTATION AND ESTIMATION		
Focus:	Practical Applications of Operations with Real Numbers		
8.3	The student will		
	a) solve practical problems involving rational numbers, percents, ratios, and proportions; and	MPA-007	Solving Problems Using Logical Reasoning Skills
		MPA-054	Solving One-Step Equations with Integers Using all Four Operations
		MPA-003	Using Four-Step Plan for Problem Solving
		MPA-116	Solving Real-Life Problems by Using Guess-and-Check and Working Backwards
		MPA-126	Solving Real-World Problems Involving Sales Tax
		MPA-127	Solving Real-World Problems Involving Discounts, Markups, and Commission
		MPA-128	Solving Real-World Problems Involving Simple and Compound Interest
		MPA-088	Solving Real-World Problems Involving Percent
		MPA-079	Unit rates
		MPA-080	Solving Proportions
		MPA-110	Solving Problems Using Proportions, Scale Drawings, Models, and Maps
		MPA-155	Comparing and Converting Rates
	b) determine the percent increase or decrease for a given situation.	MPA-087	Finding Percent Increase and Decrease
8.4	The student will apply the order of operations to evaluate algebraic expressions for given replacement values of the variables.	MPA-008	Order of Operations
		MM1-620	Using the Order of Operations in Algebraic Expressions
		MPA-014	Evaluating Expressions for Given Variables

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8.5	The student will		
	a) determine whether a given number is a perfect square; and	MPA-064	Finding Square Roots
	b) find the two consecutive whole numbers between which a square root lies.	MPA-065	Estimating Square Roots
	MEASUREMENT		
Focus:	Problem Solving		
8.6	The student will		
	a) verify by measuring and describe the relationships among vertical angles, adjacent angles, supplementary angles, and complementary angles; and	MPA-056	Classifying Angles
		MPA-057	Identifying and Applying Supplementary and Complementary Angles
	b) measure angles of less than 360°.	MM1-460	Measuring and Classifying Angles
		HGM-015	Measuring and Drawing Rays and Angles
8.7	The student will		
	a) investigate and solve practical problems involving volume and surface area of prisms, cylinders, cones, and pyramids; and	MPA-115	Finding the Volumes of Prisms, Cylinders, Pyramids, and Cones Using Models
		MPA-073	Finding the Surface Area of Rectangular Prisms
		MPA-074	Finding the Surface Area of Cylinders
	b) describe how changing one measured attribute of a figure affects the volume and surface area.	MPA-111	Comparing Perimeters, Areas, and Volumes of Similar Geometric Figures and Solids
		MPA-073	Finding the Surface Area of Rectangular Prisms
		MPA-074	Finding the Surface Area of Cylinders
	GEOMETRY		
Focus:	Problem Solving with 2- and 3-Dimensional Figures		
8.8	The student will		
	a) apply transformations to plane figures; and	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
	b) identify applications of transformations.	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
		MPA-180	Examining Line and Rotational Symmetry
8.9	The student will construct a three-dimensional model, given the top or bottom, side, and front views.	HA1-893	Constructing Solids from Different Perspectives
8.10	The student will		
	a) verify the Pythagorean Theorem; and	MPA-066	Solving Problems Using the Pythagorean Theorem
	b) apply the Pythagorean Theorem.	MPA-066	Solving Problems Using the Pythagorean Theorem
8.11	The student will solve practical area and perimeter problems involving composite plane figures.	MPA-068	Finding the Area of Irregular Figures
		MPA-160	Plotting Polygons and Finding the Area
	PROBABILITY AND STATISTICS		
Focus:	Statistical Analysis of Graphs and Problem Situations		
8.12	The student will determine the probability of independent and dependent events with and without replacement.	MPA-112	Constructing Sample Spaces for Compound Events (Dependent and Independent)
		MPA-113	Finding the Probability of Compound Events Through Experimentation
		MPA-114	Finding the Odds of Events and Experimental Probability from a Math Model
8.13	The student will		
	a) make comparisons, predictions, and inferences, using information displayed in graphs; and	MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-099	Recognizing Misleading Statistics and Graphs
		MPA-840	Interpreting Data
	b) construct and analyze scatterplots.	MPA-132	Interpreting and Creating Scatterplots

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	PATTERNS, FUNCTIONS, AND ALGEBRA		
Focus:	Linear Relationships		
8.14	The student will make connections between any two representations (tables, graphs, words, and rules) of a given relationship.	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
		HA1-402	Translating Among Multiple Representations of Functions
8.15	The student will		
	a) solve multistep linear equations in one variable with the variable on one and two sides of the equation;	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 Equations Using the Distributive Property
		MPA-175	Solving Equations with Variables on Both Sides
	b) solve two-step linear inequalities and graph the results on a number line; and	MPA-109	Solving and Graphing Linear Inequalities on a Number Line
	c) identify properties of operations used to solve an equation.	MPA-101	Solving Two-Step Equations by Combining Like Terms
		MPA-170	Solving Equations Using the Distributive Property
		MPA-175	Solving Equations with Variables on Both Sides
8.16	The student will graph a linear equation in two variables.	MPA-102	Graphing Equations by Plotting Points
		MPA-140	Examining Linear Equations in Slope-Intercept Form
8.17	The student will identify the domain, range, independent variable, or dependent variable in a given situation.	HA1-438	Finding the Domain and Range of Functions
		HA1-402	Translating Among Multiple Representations of Functions

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

Note: Standards were taken from the Mathematics Standards of Learning for Virginia Public Schools Grade 8 document adopted by the Virginia State Board of Education in February 2009.