



6th Grade VSC Correlation

	Voluntary State Curriculum	Lesson Number	Lesson Title
ALGEBRA, PATTERNS, AND FUNCTIONS			
1.A.	Patterns and Functions		
1.A.1	Identify, describe, extend, and create numeric patterns and functions		
	a) Identify and describe sequences represented by a physical model or in a function table	MM1-020	Identifying and Finding Number Patterns Using Whole Numbers
		MPA-104	Recognizing Patterns
	b) Interpret and write a rule for a one operation (+, -, x, ÷) function table		
	c) Complete a function table with a given two-operation rule		
1.B.	Expressions, Equations, and Inequalities		
1.B.1	Write and evaluate expressions		
	a) Write an algebraic expression to represent unknown quantities	MM1-600	Introducing Variables in Algebra
		MM1-615	Translating Words into Algebra
		MPA-041	Writing Simple Algebraic Expressions from Phrases
	b) Evaluate an algebraic expression	MM1-600	Introducing Variables in Algebra
		MM1-620	Using the Order of Operations in Algebraic Expressions
		MPA-014	Evaluating Expressions for Given Variables
	c) Evaluate numeric expressions using the order of operations	MM1-080	Identifying the Order of Operations Using Multiplication, Addition, and Subtraction
		MM1-085	Identifying the Order of Operations for Multiplication, Addition, and Subtraction Using Parentheses and Exponents
		MPA-008	Order of Operations
	d) Represent algebraic expressions using physical models, manipulatives, and drawings	MPA-118	Modeling Integer Arithmetic Using Algebra Tiles
1.B.2	Identify, write, solve, and apply equations and inequalities		
	a) Identify and write equations and inequalities to represent relationships	MM1-640	Solving Algebraic Word Problems
		MPA-012	Solving One-Step Equations of Whole Numbers Using All Operations
		MPA-042	Solving Problems Using an Equation
		MPA-109	Solving and Graphing Linear Inequalities on a Number Line
		HA1-105	Translating Word Statements into Inequalities
	b) Determine the unknown in a linear equation	MM1-640	Solving Algebraic Word Problems
		MPA-009	Solving One-Step Equations Using a Box
		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
	c) Solve for the unknown in a one-step inequality	MPA-109	Solving and Graphing Linear Inequalities on a Number Line
	d) Identify or graph solutions of a one step inequality on a number line	MPA-109	Solving and Graphing Linear Inequalities on a Number Line

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	e) Apply given formulas to a problem solving situation	MM1-505	Determining the Perimeter of Any Polygon
		MM1-510	Determining the Area of Parallelograms and Triangles
		MM1-515	Defining a Circle
		MM1-525	Finding the Volume of Rectangular and Triangular Prisms
		MM1-605	Converting Fahrenheit and Celsius
		MM1-610	Finding Simple Interest
		MM1-635	Calculating Distance, Rate, or Time by Solving Equations
		MPA-055	Finding the Perimeter of a Figure
		MPA-067	Finding the Area of Rectangles and Parallelograms
		MPA-068	Finding the Area of Irregular Figures
		MPA-069	Finding the Area of Triangles and Trapezoids
		MPA-070	Finding the Circumference of a Circle
		MPA-071	Finding the Area of a Circle
		MPA-075	Finding the Volume of Rectangular Prisms
		MPA-077	Solving Problems Using a Formula
1.C.	Numeric and Graphic Representations of Relationships		
1.C.1	Locate points on a number line and in a coordinate plane		
	a) Represent rational numbers on a number line	MM1-570	Identifying Integers and Absolute Value
		MM1-575	Comparing and Ordering Integers
		MPA-031	Comparing and Ordering Fractions and Decimals
		MPA-044	Finding Opposite and Absolute Values of Integers
		MPA-045	Comparing and Ordering Integers
	b) Graph ordered pairs in a coordinate plane.	MM1-642	Exploring the Coordinate Plane and Graphing Ordered Pairs
		MPA-046	Graphing Points on a Coordinate Plane
	c) Graph linear data from a function table	MPA-102	Graphing Equations by Plotting Points
1.C.2	Analyze linear relationships		
	a) Identify and describe the change represented in a graph (Assessment limit: Identify increase, decrease, or no change)	MM1-430	Using Graphs to Solve Story Problems
		MM1-435	Using Pictographs, Bar Graphs and Line Graphs to Solve Problems
		MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-132	Interpreting and Creating Scatter Plots
	b) Translate the graph of a linear relationship onto a table of values that illustrates the type of change	MPA-102	Graphing Equations by Plotting Points
GEOMETRY			
2.A.	Plane Geometric Figures		
2.A.1	Analyze the properties of plane geometric figures		
	a) Identify, describe, and label points, lines, rays, line segments, vertices, angles, and planes using correct symbolic notation	MM1-455	Identifying Basic Terms Used in Geometry
	b) Identify and describe line segments	MM1-455	Identifying Basic Terms Used in Geometry
	c) Identify and describe the parts of a circle	MM1-515	Defining a Circle
2.A.2	Analyze geometric relationships		
	a) Compare and classify triangles by sides	MM1-480	Identifying and Labeling Triangles According to Their Sides and Angles
		MPA-059	Classifying Triangles and Quadrilaterals
	b) Compare and classify triangles by angle measure	MM1-480	Identifying and Labeling Triangles According to Their Sides and Angles
		MPA-059	Classifying Triangles and Quadrilaterals
	c) Determine a third angle measure of a triangle given two angle measures	MM1-480	Identifying and Labeling Triangles According to Their Sides and Angles
		MPA-057	Identifying and Applying Supplementary and Complementary Angles
		MPA-105	Determining the Measure of Angles Made by Parallel Lines and a Transversal
	d) Identify and compare the relationship between parts of a circle	MM1-515	Defining a Circle
2.C.	Representation of Geometric Figures		
2.C.1	Represent plane geometric figures		

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	a) Draw geometric figures using a variety of tools	MM1-465	Naming and Classifying Polygons by Characteristics
		MPA-058	Identifying Polygons
		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
	b) Identify, describe, or draw a polygon	MM1-465	Naming and Classifying Polygons by Characteristics
		MPA-058	Identifying Polygons
	c) Identify or describe angle relationships	MM1-460	Measuring and Classifying 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
2.D.	Congruence and Similarity		
2.D.1	Analyze congruent figures		
	a) Identify and describe congruent polygons and their corresponding parts	MM1-480	Identifying and Labeling Triangles According to Their Sides and Angles
		MPA-058	Identifying Polygons
		MPA-059	Classifying Triangles and Quadrilaterals
		MPA-121	Identifying Similar and Congruent Polygons Using Proportions
2.E.	Transformations		
2.E.1	Analyze a transformation on a coordinate plane		
	a) Plot the result of one transformation (translation, reflection, rotation) on a coordinate plane	MM1-500	Using Translations, Rotations and Reflections to Transform Shapes
		MPA-108	Graphing Translations and Reflections on the Coordinate Plane
MEASUREMENT			
3.B.	Measurement Tools		
3.B.1	Measure in customary and metric units		
	a) Select and use appropriate tools and units	MPA-130	Developing a Sense of Relative Sizes of Measures
		MM1-460	Measuring and Classifying Angles
3.B.2	Measure angles in polygons		
3.C.	Applications in Measurement		
3.C.1	Estimate and apply measurement formulas		
	a) Estimate and determine the area of a polygon	MM1-510	Determining the Area of Parallelograms and Triangles
		MPA-067	Finding the Area of Rectangles and Parallelograms
		MPA-069	Finding the Area of Triangles and Trapezoids
	b) Estimate and determine the volume of a rectangular prism	MM1-525	Finding the Volume of Rectangular and Triangular Prisms
		MPA-075	Finding the Volume of Rectangular Prisms
	c) Estimate and determine the area of a composite figure	MPA-068	Finding the Area of Irregular Figures
	d) Determine missing dimension of a quadrilateral given the perimeter length	MM1-505	Determining the Perimeter of Any Polygon
		MPA-055	Finding the Perimeter of a Figure
	e) Determine the missing dimension of rectangles	MM1-505	Determining the Perimeter of Any Polygon
		MM1-510	Determining the Area of Parallelograms and Triangles
STATISTICS			
4.A.	Data Displays		
4.A.1	Organize and display data		
	a) Organize and display data to make frequency tables	MPA-129	Choosing Appropriate Scales and Intervals for Data (an Introduction)
		MPA-131	Interpreting and Creating Histograms
		HA1-545	Making a Frequency Distribution Table
	b) Organize and display data to make stem-and-leaf plots	MPA-096	Constructing Stem-and-Leaf Plots
	c) Organize and display data using a back-to-back stem-and-leaf plot	MPA-096	Constructing Stem-and-Leaf Plots
4.B.	Data Analysis		

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4.B.1	Analyze data		
	a) Interpret frequency tables	MPA-129	Choosing Appropriate Scales and Intervals for Data (an Introduction)
		MPA-131	Interpreting and Creating Histograms
		HA1-545	Making a Frequency Distribution Table
	b) Read and analyze circle graphs	MM1-405	Interpreting and Constructing Circle Graphs
		MPA-092	Reading and Interpreting Bar, Line, and Circle Graphs
		MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
	c) Interpret data from a stem-and-leaf plot	MM1-390	Understanding Data in Bar Graphs, Line Graphs, and Stem-and-Leaf Plots
		MM1-420	Defining and Calculating the Median and the Mode
		MPA-096	Constructing Stem-and-Leaf Plots
4.B.2	Describe a set of data		
	a) Apply measures of central tendency (mean, median, mode)	MM1-415	Defining and Calculating the Range and the Mean
		MM1-420	Defining and Calculating the Median and the Mode
		MPA-095	Find the Mean, Median, and Mode
PROBABILITY			
5.B.	Theoretical Probability		
5.B.1	Determine the probability of one simple event comprised of equally likely outcomes		
	a) Express the probability of an event as a fraction.	MM1-230	Finding the Probability of Simple Events
		MPA-090	Finding the Probability of Simple Real-Life Events
	b) Express the probability of an event as a decimal	MM1-230	Finding the Probability of Simple Events
		MPA-090	Finding the Probability of Simple Real-Life Events
	c) Express the probability of an event as a percent	MM1-230	Finding the Probability of Simple Events
		MPA-090	Finding the Probability of Simple Real-Life Events
5.C.	Experimental Probability		
5.C.1	Analyze the results of a probability experiment		
	a) Make predictions and express the experimental probability as a fraction, a decimal, or a percent	MM1-235	Finding Experimental Probability
		MPA-114	Finding the Odds of Events and Experimental Probability from a Math Model
5.C.2	Conduct a probability experiment	MM1-230	Finding the Probability of Simple Events
		MM1-235	Finding Experimental Probability
		MPA-090	Finding the Probability of Simple Real-Life Events
		MPA-114	Finding the Odds of Events and Experimental Probability from a Math Model
5.C.3	Compare outcomes of theoretical probability with the results of experimental probability	MM1-235	Finding Experimental Probability
5.C.4	Describe the difference between theoretical and experimental probability	MM1-235	Finding Experimental Probability
NUMBER RELATIONSHIPS AND COMPUTATION/ARITHMETIC			
6.A.	Knowledge of Number and Place Value		
6.A.1	Apply knowledge of fractions, decimals, and place value		
	a) Read, write, and represent fractions or mixed numbers using symbols, models, and words	MM1-115	Writing Fractions in Simplest Form
		MM1-120	Identifying Proper and Improper Fractions
		MM1-125	Writing Mixed Numbers as Improper Fractions
		MM1-127	Writing Remainders as Fractions
		MM1-205	Writing a Ratio to Compare Two Objects
		MPA-028	Reducing Fractions to Lowest Terms/Simplest Form
		MPA-032	Converting Improper Fractions and Mixed Numbers
	b) Read, write, and represent decimals using symbols, words, or models	MM1-270	Identifying Place Value in Decimal Numbers
		MM1-280	Identifying and Writing Decimals to the Hundredths and Thousandths
		MPA-015	Identifying the Place Value of Decimals Through Thousandths

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	c) Identify and determine equivalent forms of proper fractions	MM1-210	Identifying and Writing Equal Ratios
		MM1-358	Converting Fractions and Mixed Numbers with Denominators of Powers of Ten to Decimals
		MM1-365	Converting Decimals to Fractions and Fractions to Decimals
		MM1-375	Converting Fractions to Percents and Percents to Fractions
		MM1-380	Converting Fractions to Decimals and Percents
		MPA-029	Converting Fractions and Decimals
		MPA-078	Expressing Ratios as Fractions and Determining Equivalency
	d) Compare and order fractions with or without using the symbols (<, >, or =)	MM1-110	Comparing and Ordering Fractions with Like Denominators
		MM1-135	Comparing and Ordering Fractions with Like and Unlike Denominators
		MPA-031	Comparing and Ordering Fractions and Decimals
	e) Compare, order, and describe decimals with or without using the symbols (<, >, or =)	MM1-275	Comparing Decimal Numbers
		MM1-285	Ordering Decimals According to the Tenths, Hundredths and Thousandths
		MPA-016	Comparing and Ordering Decimals
		MPA-031	Comparing and Ordering Fractions and Decimals
6.B.	Number Theory		
6.B.1	Apply number relationships		
	a) Identify or describe numbers as prime or composite	MM1-090	Identifying Prime and Composite Numbers
		MPA-025	Identifying Prime and Composite Numbers
	b) Identify and use rules of divisibility	MM1-088	Applying the Divisibility Rules for 2, 3, 4, 5, 6, 9 and 10
		MPA-024	Using Divisibility Rules
	c) Identify the greatest common factor	MM1-105	Identifying the Greatest Common Factor and the Least Common Multiple
		MPA-027	Finding the Greatest Common Factor
	d) Identify a common multiple and the least common multiple	MM1-105	Identifying the Greatest Common Factor and the Least Common Multiple
		MPA-030	Finding Least Common Multiple of Two or More Numbers
6.C.	Number Computation		
6.C.1	Analyze number relations and compute		
	a) Multiply whole numbers	MM1-045	Identifying and Using Properties of Multiplication to Solve Problems
		MM1-050	Identifying Special Patterns in Multiplication
		MM1-055	Multiplying Whole Numbers with Two and Three Digits
	b) Divide whole numbers	MM1-065	Solving Division in Three Forms
		MM1-075	Dividing with Remainders and Zeros in the Quotient
	c) Interpret quotients and remainders mathematically and in the context of a problem	MM1-075	Dividing with Remainders and Zeros in the Quotient
	d) Add and subtract proper fractions and mixed numbers with answers in simplest form	MM1-145	Adding and Subtracting Fractions with Like and Unlike Denominators
		MM1-150	Adding Mixed Numbers with Like Denominators
		MM1-155	Subtracting Mixed Numbers with Like Denominators
		MM1-160	Adding and Subtracting Mixed Numbers with Unlike Denominators
		MPA-034	Adding and Subtracting Fractions
		MPA-035	Adding and Subtracting Mixed Numbers with Unlike Denominators
	e) Add decimals including money	MM1-300	Adding and Subtracting Decimals
		MM1-320	Performing Mathematical Operations with Decimal Numbers in Application Problems
		MM1-355	Solving Multiple-Step Problems
		MPA-018	Adding and Subtracting Decimals
	f) Subtract decimals including money	MM1-300	Adding and Subtracting Decimals
		MM1-320	Performing Mathematical Operations with Decimal Numbers in Application Problems
		MM1-355	Solving Multiple-Step Problems
		MM1-310	Multiplying Decimals
	g) Multiply decimals	MM1-320	Performing Mathematical Operations with Decimal Numbers in Application Problems

	Voluntary State Curriculum	Lesson Number	Lesson Title
		MM1-355	Solving Multiple-Step Problems
		MPA-018	Adding and Subtracting Decimals
		MPA-019	Multiplying Decimals
		MPA-020	Multiplying Decimals by Powers of Ten
	h) Divide decimals by whole numbers	MM1-311	Using a One-Digit Divisor, Express the Remainder as a Decimal
		MM1-313	Using a Two-Digit Divisor, Express the Remainder as a Decimal
		MM1-315	Dividing Decimals by Whole Number Divisors
		MM1-320	Performing Mathematical Operations with Decimal Numbers in Application Problems
		MM1-355	Solving Multiple-Step Problems
6.C.2	Estimation		
	a) Determine the approximate sum and difference of decimals	MPA-017	Rounding Decimals and Estimating Computations Using Decimals
	b) Determine approximate product and quotient of whole numbers	MM1-060	Estimating Products
		MM1-070	Estimating Quotients
		MPA-005	Estimating Products and Quotients Using Patterns
	c) Determine the approximate product of decimals	MM1-305	Estimating Products by Rounding to the Nearest Whole Number
PROCESSES OF MATHEMATICS			
7.A.	Problem Solving		
7.A.1	Apply a variety of concepts, processes, and skills to solve problems		
	a. Identify the question in the problem	MM1-425	Classifying Information from a Mathematical Story
		MPA-125	Formulating a Possible Problem Situation Given an Equation
	b. Decide if enough information is present to solve the problem	MM1-425	Classifying Information from a Mathematical Story
	c. Make a plan to solve a problem	MPA-003	Using Four-Step Plan for Problem Solving
	d. Apply a strategy, i.e., draw a picture, guess and check, finding a pattern, writing an equation	MPA-116	Solving Real-Life Problems by Using Guess-and-Check and Working Backwards
		MPA-007	Solving Problems Using Logical Reasoning Skills
		Throughout	
	e. Select a strategy, i.e., draw a picture, guess and check, finding a pattern, writing an equation	MPA-116	Solving Real-Life Problems by Using Guess-and-Check and Working Backwards
		MPA-007	Solving Problems Using Logical Reasoning Skills
		Throughout	
	f. Identify alternative ways to solve a problem	Throughout	
	g. Show that a problem might have multiple solutions or no solution	Throughout	
	h. Extend the solution of a problem to a new problem situation		
7.B.	Reasoning		
7.B.1	Justify ideas or solutions with mathematical concepts or proofs		
	a. Use inductive or deductive reasoning	MPA-007	Solving Problems Using Logical Reasoning Skills
	b. Make or test generalizations	MPA-007	Solving Problems Using Logical Reasoning Skills
	c. Support or refute mathematical statements or solutions	Throughout	
	d. Use methods of proof, i.e., direct, indirect, paragraph, or contradiction	HA1-881	Completing and Validating Algebraic Proofs
7.C.	Communication		
7.C.1	Present mathematical ideas using words, symbols, visual displays, or technology		
	a. Use multiple representations to express concepts or solutions	Throughout	
	b. Express mathematical ideas orally	Throughout	
	c. Explain mathematically ideas in written form	Throughout	
	d. Express solutions using concrete materials	Throughout	
	e. Express solutions using pictorial, tabular, graphical, or algebraic methods	MM1-435	Using Pictographs, Bar Graphs and Line Graphs to Solve Problems
		Throughout	
	f. Explain solutions in written form	Throughout	
	g. Ask questions about mathematical ideas or problems	Throughout	

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	h. Give or use feedback to revise mathematical thinking	Throughout	
7.D.	Connections		
7.D.1	Relate or apply mathematics within the discipline, to other disciplines, and to life	Throughout	
	a. Identify mathematical concepts in relationship to other mathematical concepts	Throughout	
	b. Identify mathematical concepts in relationship to other disciplines	Throughout	
	c. Identify mathematical concepts in relationship to life	Throughout	
	d. Use the relationship among mathematical concepts to learn other mathematical concepts	Throughout	

MM1-Fundamentals of Mathematics (Fall 2005)

MPA- Pre-Algebra

HA1-Algebra 1

Note: Standards were taken from the Maryland Voluntary State Curriculum document for Mathematics Grades 3-8 adopted by the Maryland State Department of Education in 2004.