



## Correlation to 7th Grade Core Content for Assessment

	Mathematics Curriculum Framework	Lesson Number	Lesson Title
<b>Number Properties and Operations</b>			
*MA-07-1.1.1	Students will provide examples of and identify integers, fractions, decimals, percents and $\pi$ .	MPA-043	Reading and Writing Integers
		MPA-045	Comparing and Ordering Integers
		MPA-044	Finding Opposite and Absolute Values of Integers
		MPA-015	Identifying the Place Value of Decimals Through Thousandths
		MPA-016	Comparing and Ordering Decimals
		MPA-028	Reducing Fractions to Lowest Terms/Simplest Form
		MPA-029	Converting Fractions and Decimals
		MPA-031	Comparing and Ordering Fractions and Decimals
		MPA-032	Converting Improper Fractions and Mixed Numbers
		MPA-081	Converting Fractions, Decimals, and Percents I
		MPA-082	Converting Fractions, Decimals, and Percents II
		MPA-124	Classifying Numbers in the Real Number System
MA-07-1.1.2	Students will describe and provide examples of representations of numbers (whole numbers, fractions, decimals, percents, integers, square roots and $\pi$ ) and operations in a variety of equivalent forms using models, diagrams and symbols (e.g., number lines, 10 by 10 grids, rectangular arrays, number sentences) based on real-world and mathematical problems.	MPA-045	Comparing and Ordering Integers (using a number line)
		MPA-117	Modeling Integer Arithmetic Using Cups and Counters
		MPA-047	Adding Integers with Like Signs
		MPA-048	Adding Integers with Unlike Signs (using two-colored counters)
		MM1-370	Converting Decimals to Percents and Percents to Decimals (10 X 10 grid)
		MM1-380	Converting Fractions to Decimals and Percents (using models)
		MPA-122	Modeling Multiplication and Division of Decimals (area model)
		MPA-123	Modeling Multiplication and Division of Fractions (using fraction strips)
*MA-07-1.1.3	Students will convert among whole numbers, fractions, decimals, percents and $\pi$ and will compare and order these numbers.	MPA-081	Converting Fractions, Decimals, and Percents I
		MPA-082	Converting Fractions, Decimals, and Percents II
		MPA-124	Classifying Numbers in the Real Number System
		MPA-016	Comparing and Ordering Decimals
		MPA-031	Comparing and Ordering Fractions and Decimals
*MA-07-1.2.1	Students will estimate to solve real-world and mathematical problems with fractions, decimals and percents, checking for reasonable and appropriate computational results.	MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
		MPA-004	Using Rounding to Estimate
		MPA-005	Estimating Products and Quotients Using Patterns
		MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation

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		MPA-017	Rounding Decimals and Estimating Computations Using Decimals
		MPA-023	Rounding Quotients Involving Decimals
		MPA-033	Estimating Computations with Fractions and Mixed Numbers
		MPA-086	Solving Problems Using Percent
		MPA-116	Solving Real-Life Problems by Using Guess-and-Check and Working Backwards
*MA-07-1.3.1	Students will add, subtract, multiply and divide whole numbers, fractions and decimals to solve real-world problems and apply order of operations (including positive whole number exponents) to simplify numerical expressions.	MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
		MPA-013	Using Powers and Exponents in Expressions
		MPA-008	Order of Operations
		MPA-018	Adding and Subtracting Decimals
		MPA-019	Multiplying Decimals
		MPA-020	Multiplying Decimals by Powers of Ten
		MPA-119	Dividing Decimals
		MPA-122	Modeling Multiplication and Division of Decimals
		MPA-023	Rounding Quotients Involving Decimals
		MPA-034	Adding and Subtracting Fractions
		MPA-035	Adding and Subtracting Mixed Numbers with Unlike Denominators
		MPA-036	Multiplying Fractions and Mixed Numbers and Simplifying
		MPA-037	Dividing Fractions and Mixed Numbers and Simplifying
		MPA-123	Modeling Multiplication and Division of Fractions
MA-07-1.3.2	Students will explain how operations (addition and subtraction; multiplication and division) are inversely related.	MM1-040	Solving One-Step Equations with Decimals Using All Four Operations
		MM1-045	Comparing and Ordering Integers
		MPA-002	Adding, Subtracting, Multiplying, and Dividing Whole Numbers
		MPA-043	Reading and Writing Integers
*MA-07-1.3.3	Students will add and subtract integers.	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
*MA-07-1.4.1	Students will apply ratios and proportional reasoning to solve real-world problems (e.g., percents, sales tax, discounts, rate).	MPA-078	Expressing Ratios as Fractions and Determining Equivalency
		MPA-079	Unit rates
		MPA-080	Solving Proportions
		MPA-126	Solving Real-World Problems Involving Sales Tax
		MPA-127	Solving Real-World Problems Involving Discounts
		MPA-128	Solving Real-World Problems Involving Simple Interest
*MA-07-1.5.1	Students will identify and apply prime numbers, composite numbers, prime factorization, factors, multiples and divisibility to solve real-world and mathematical problems (e.g., prime factorization to determine a least common multiple [LCM] or greatest common factor [GCF]).	MPA-024	Using Divisibility Rules
		MPA-025	Identifying Prime and Composite Numbers
		MPA-026	Using Prime Factorization
		MPA-027	Finding the Greatest Common Factor
		MPA-030	Finding Least Common Multiple of Two or More Numbers

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*MA-07-1.5.2	Students will identify the use of properties (commutative properties of addition and multiplication, the associative properties of addition and multiplication and the identity properties for addition and multiplication) to justify a given step in solving problems.	MM1-025	Identifying the Properties of Addition
		MM1-045	Identifying and Using Properties of Multiplication to Solve Problems
<b>Measurement</b>			
*MA-07-2.1.1	Students will measure lengths (to the nearest eighth of an inch or the nearest centimeter) and will determine and use in real-world and mathematical problems:		
	· area and perimeter of triangles;	MPA-055	Finding the Perimeter of a Figure
		MPA-069	Finding the Area of Triangles and Trapezoids
	· area and perimeter of quadrilaterals (rectangles, squares, trapezoids) (using the Pythagorean theorem will not be required as a strategy);	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
	· area and circumference of circles and	MPA-070	Finding the Circumference of a Circle
		MPA-071	Finding the Area of a Circle
	· area and perimeter of compound figures composed of triangles, quadrilaterals and circles.	MPA-069	Finding the Area of Triangles and Trapezoids
MA-07-2.1.2	Students will estimate measurements of regular and irregular polygons and circles in standard units.	MM1-515	Defining a Circle
		MPA-068	Finding the Area of Irregular Figures
MA-07-2.1.3	Students will explain how measurements and measurement formulas are related or different (e.g., perimeter and area of rectangles).	MPA-077	Solving Problems Using a Formula
		<i>Journal Questions</i>	
MA-07-2.1.4	Students will find the measures of angles by estimation and determine measurement with a protractor or angle ruler.	MM1-460	Measuring and Classifying Angles
MA-07-2.2.1	Students will convert units within the same measurement system and use these units to solve real-world problems.	MPA-062	Converting Units in Customary System
		MPA-061	Converting Metric Units of Length, Capacity, and Mass
<b>Geometry</b>			
MA-07-3.1.1	Students will describe, provide examples of and identify (using correct notation, label and name) the basic geometric elements (e.g., points, segments, rays, lines, angles and planes) in real-world and mathematical problems.	MPA-056	Classifying Angles
		MPA-057	Identifying and Applying Supplementary and Complementary Angles
*MA-07-3.1.2	Students will describe and provide examples of the elements (e.g., sides, vertices, angles, congruent parts) of two-dimensional figures (circles, triangles [acute, right, obtuse, scalene, isosceles, equilateral], quadrilaterals [square, rectangle, rhombus, parallelogram, trapezoid], regular polygons) and will apply these elements and figures to solve real-world and mathematical problems.	MPA-058	Identifying Polygons
		MPA-059	Classifying Triangles and Quadrilaterals
		MPA-060	Determining Which Figures Tessellate
MA-07-3.1.3	Students will describe, provide examples of and identify elements (e.g., vertices, angles, faces, edges, congruent parts) of common three-dimensional figures (spheres, cones, cylinders, prisms and pyramids).	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
*MA-07-3.1.4	Students will describe and provide examples of congruent and similar figures and will apply congruent and similar figures to solve real-world and	MPA-121	Constructing Three-Dimensional Figures and Examining Their Dimensions

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	mathematical problems.		
MA-07-3.2.2	Students will translate (slide) and reflect (flip) figures in a coordinate plane.	MPA-108	Graphing Translations and Reflections on the Coordinate Plane
MA-07-3.2.3	Students will identify rotations (clockwise or counterclockwise) of figures about the origin in the plane ( $90^\circ$ , $180^\circ$ , $270^\circ$ ).	New lesson in development	MPA-180 Line and Rotational Symmetry (Future release)
*MA-07-3.3.1	Students will identify and graph ordered pairs on a coordinate system, correctly identifying the origin, axes and ordered pairs; and will apply graphing in the coordinate system to solve real-world and mathematical problems.	MPA-046	Graphing Points on a Coordinate Plane
<b>Data Analysis and Probability</b>			
*MA-07-4.1.1	Students will analyze and make inferences from data displays (drawings, tables/charts, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs, stem-and-leaf plots, scatter plots).	MM1-390	Understanding Data in Bar Graphs, Line Graphs, and Stem-and-Leaf Plots
		MM1-400	Interpreting Double Bar Graphs
		MM1-405	Interpreting and Constructing Circle Graphs
		MM1-425	Classifying Information from a Mathematical Story
		MM1-430	Using Graphs to Solve Story Problems
		MPA-092	Reading and Interpreting Bar, Line, and Circle Graphs
MA-07-4.1.2	Students will explain how different representations of data (e.g., tables, graphs, diagrams, plots) are related.	MM1-430	Using Graphs to Solve Story Problems
		MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-099	Recognizing Misleading Statistics and Graphs
		MPA-840	Interpreting Data (Future Release)
MA-07-4.1.3	Students will read/interpret, analyze and make inferences from box and whisker plots of data and make predictions and draw conclusions from the data.	MPA-097	Constructing Box-and-Whisker Plots
*MA-07-4.1.4	Students will determine and construct appropriate data displays (bar graphs, line plots, Venn diagrams, tables, line graphs, stem-and-leaf plots) and will explain why the type of display is appropriate for the data.	MPA-129	Choosing Appropriate Scales and Intervals for Data
		MPA-094	Interpreting and Constructing Line Plots
		MPA-096	Constructing Stem-and-Leaf 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
		MM1-430	Using Graphs to Solve Story Problems
		MM1-435	Using Pictographs, Bar Graphs and Line Graphs to Solve Problems
MA-07-4.1.5	Students will make decisions about how misleading representations affect interpretations and conclusions about data (e.g. changing the scale on a graph).	MPA-129	Choosing Appropriate Scales and Intervals for Data
		MPA-098	Making Predictions from Graphs and Choosing the Correct Graph
		MPA-099	Recognizing Misleading Statistics and Graphs
		MPA-840	Interpreting Data (Future Release)
*MA-07-4.2.1	Students will determine the mean, median, mode and range of a set of data and will identify clusters, gaps and outliers within the data.	MPA-095	Find the Mean, Median, and Mode
		MPA-097	Constructing Box-and-Whisker Plots
		MPA-094	Interpreting and Constructing Line Plots
		MPA-131	Interpreting and Creating Histograms
		MPA-096	Constructing Stem-and-Leaf Plots
*MA-07-4.4.1	Students will apply counting techniques to determine the size of a sample space for a real-world or mathematical situation.	MPA-089	Using Tree Diagrams
		MPA-090	Finding the Probability of Simple Real-Life Events

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		MPA-091	Finding the Number of Combinations of a Set of Objects
		MPA-112	Constructing Sample Spaces for Compound Events (Dependent and Independent)
*MA-07-4.4.2	Students will:		
	· determine theoretical probabilities of simple events;	MPA-090	Finding the Probability of Simple Real-Life Events
	· determine probabilities based on the results of an experiment and	MPA-112	Constructing Sample Spaces for Compound Events (Dependent and Independent)
	· make inferences from probability data.	MPA-113	Finding the Probability of Compound Events Through Experimentation
		MPA-114	Finding the Odds of Events and Experimental Probability from a Math Model
MA-07-4.4.3	Students will tabulate experimental results from simulations and explain how theoretical and experimental probabilities are related.	MM1-235	Finding Experimental Probability
<b>Algebraic Thinking</b>			
*MA-07-5.1.1	Students will extend, describe rules for patterns and find a missing term in a pattern from real-world and mathematical problems.	MPA-104	Recognizing Patterns
		MPA-270	Generating Algebraic Expressions from Patterns of Models (Future Release)
*MA-07-5.1.2	Students will represent, analyze and generalize first degree relationships using tables, graphs and words and will apply the relationships to solve real-world and mathematical problems.	MM1-625	Solving Algebraic Equations Using the Inverse Operations of Addition and Subtraction
		MM1-630	Solving Algebraic Equations Using the Inverse Operations of Multiplication and Division
		MM1-640	Solving Algebraic Word Problems
		MPA-125	Formulating a Possible Problem Situation Given an Equation
		MPA-270	Generating Algebraic Expressions from Patterns of Models (Future Release)
		<i>Throughout</i>	
MA-07-5.1.3	Students will explain how tables, graphs, patterns, verbal rules and equations relate to each other.	MM1-625	Solving Algebraic Equations Using the Inverse Operations of Addition and Subtraction
		MM1-630	Solving Algebraic Equations Using the Inverse Operations of Multiplication and Division
		MM1-640	Solving Algebraic Word Problems
		MPA-125	Formulating a Possible Problem Situation Given an Equation
		MPA-270	Generating Algebraic Expressions from Patterns of Models (Future Release)
		MPA-041	Writing Simple Algebraic Expressions from Phrases
		MM1-615	Translating Words into Algebra
*MA-07-5.1.5	Students will explain how the change in one quantity affects the change in another quantity (e.g., in tables or graphs).	MM1-625	Solving Algebraic Equations Using the Inverse Operations of Addition and Subtraction
		MM1-630	Solving Algebraic Equations Using the Inverse Operations of Multiplication and Division
		MPA-102	Graphing Equations by Plotting Points
		MPA-103	Distinguishing Between Relations and Functions
		HA1-436	Identifying Relations
		HA1-437	Identifying Relations as Functions
*MA-07-5.2.1	Students will substitute values for variables (up to three different variables) and evaluate algebraic expressions.	MPA-014	Evaluating Expressions for Given Variables
		MPA-077	Solving Problems Using a Formula
		HA1-005	Evaluating Algebraic Expressions
		HA1-065	Evaluating Expressions Containing Exponents
MA-07-5.2.2	Students will describe, define and provide examples of variables and expressions with a missing value based on real-world and mathematical problems.	MPA-014	Evaluating Expressions for Given Variables
		MPA-077	Solving Problems Using a Formula
		HA1-005	Evaluating Algebraic Expressions
		HA1-065	Evaluating Expressions Containing Exponents
		MPA-270	Generating Algebraic Expressions from Patterns of Models (Future Release)
		MPA-125	Formulating a Possible Problem Situation Given an Equation

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*MA-07-5.3.1	Students will model and solve real-world and mathematical problems with one- or two-step single variable, first degree equations or inequalities (e.g., $2x+1 = 9$ , $3x+3 < 9$ ). (Statements and solutions use only non-negative numbers.)	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
		MPA-100	Solving Two-Step Equations
		MPA-101	Solving Equations by Combining Like Terms

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

*Note:* Standards were taken from the Seventh Grade Core Content for Assessment Version 4.1 for Kentucky Department of Education- Grade 7 document adopted by the Kentucky State Board of Education in August 2006.