Curriculum Map: Common Core Math Grade 3

Course: Third-Math Subtopic: General

Grade(s): None specified

Unit: Number and Operations in Base Ten

STANDARDS

STATE: PA Common Core Standards (2012)

CC.2.1.3.B.1 (Advanced)	Apply place value understanding and properties of operations to perform multi-digit arithmetic.

STATE: PA Common Core Anchors and Eligible Content (May 2012)

M03.A-T.1.1.1 (Advanced)	Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.
M03.A-T.1.1.2 (Advanced)	Add two- and three-digit whole numbers (limit sums from 100 through 1,000), and/or subtract two- and three-digit numbers from three-digit whole numbers.
M03.A-T.1.1.3 (Advanced)	Multiply one-digit whole numbers by two-digit multiples of 10 (from 10 through 90).
M03.A-T.1.1.4 (Advanced)	Order a set of whole numbers from least to greatest or greatest to least (up through 9,999; limit sets to no more than four numbers).

This Curriculum Map Unit has no Topics to display

Unit: Operations and Algebraic Thinking

STANDARDS

STATE: PA Common Core Standards (2012)

CC.2.2.3.A.1 (Advanced)	Represent and solve problems involving multiplication and division.
CC.2.2.3.A.2 (Advanced)	Understand properties of multiplication and the relationship between multiplication and division.
CC.2.2.3.A.3 (Advanced)	Demonstrate multiplication and division fluency.
CC.2.2.3.A.4 (Advanced)	Solve problems involving the four operations, and identify and explain patterns in arithmetic.

STATE: PA Common Core Anchors and Eligible Content (May 2012)

M03.B-O.1.1.1 (Advanced)	Interpret and/or describe products of whole numbers (up to and including 10×10). Example 1: Interpret 35 as the total number of objects in 5 groups, each containing 7 objects. Example 2: Describe a context in which a total number of objects can be expressed as 5×7.
M03.B-O.1.1.2 (Advanced)	Interpret and/or describe whole-number quotients of whole numbers (limit dividends through 50, and limit divisors and quotients through 10). Example 1: Interpret $48 \div 8$ as the number of objects in each share when 48 objects are partitioned equally into 8 shares, or as a number of shares when 48 objects are partitioned into equal shares of 8 objects each. Example 2: Describe a context in which a number of shares or a number of groups can be expressed as $48 \div 8$.
M03.B-O.1.2.1 (Advanced)	Use multiplication (up to and including 10×10) and/or division (limit dividends through 50, and limit divisors and quotients through 10) to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.
M03.B-O.1.2.2 (Advanced)	Determine the unknown whole number in a multiplication (up to and including 10×10) or division (limit dividends through 50, and limit divisors and quotients through 10) equation relating three whole numbers.Example: Determine the unknown number that makes an equation true.
M03.B-O.2.1.1 (Advanced)	Apply the commutative property of multiplication (not identification or definition of the property).
M03.B-O.2.1.2 (Advanced)	Apply the associative property of multiplication (not identification or definition of the property).

M03.B-O.2.2.1 (Advanced)	Interpret and/or model division as a multiplication equation with an unknown factor. Example: Find 32 ÷ 8 by solving 8 × ? = 32.
M03.B-O.3.1.1 (Advanced)	Solve two-step word problems using the four operations (expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers.
M03.B-O.3.1.2 (Advanced)	Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.
M03.B-O.3.1.3 (Advanced)	Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.
M03.B-O.3.1.4 (Advanced)	Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).
M03.B-O.3.1.5 (Advanced)	Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations. Example 1: Observe that 4 times a number is always even. Example 2: Explain why 6 times a number can be decomposed into three equal addends.
M03.B-O.3.1.6 (Advanced)	Create or match a story to a given combination of symbols (+, −, ×, ÷, <, >, =) and numbers.
M03.B-O.3.1.7 (Advanced)	Identify the missing symbol (+, −, ×, ÷, <, >, =) that makes a number sentence true.

This Curriculum Map Unit has no Topics to display

Unit: Numbers and Operations-Fractions

STANDARDS

STATE: PA Common Core Standards (2012)

CC.2.1.3.C.1 (Advanced)	Explore and develop an understanding of fractions as numbers.

STATE: PA Common Core Anchors and Eligible Content (May 2012)

M03.A-F.1.1.1 (Advanced)	Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole (limit the denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; no simplification necessary).
M03.A-F.1.1.2 (Advanced)	Represent fractions on a number line (limit the denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; no simplification necessary).
M03.A-F.1.1.3 (Advanced)	Recognize and generate simple equivalent fractions (limit the denominators to 1, 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator).
M03.A-F.1.1.4 (Advanced)	Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers (limit the denominators to 1, 2, 3, 4, 6, and 8).
M03.A-F.1.1.5 (Advanced)	Compare two fractions with the same denominator (limit the denominators to 1, 2, 3, 4, 6, and 8), using the symbols >, =, or <, and/or justify the conclusions.

This Curriculum Map Unit has no Topics to display

Unit: Measurement and Data

STANDARDS

STATE: PA Common Core Standards (2012)

CC.2.4.3.A.1 (Advanced)	Solve problems involving measurement and estimation of temperature, liquid volume, mass or length.
CC.2.4.3.A.2 (Advanced)	Tell and write time to the nearest minute and solve problems by calculating time intervals.
CC.2.4.3.A.3 (Advanced)	Solve problems and make change involving money using a combination of coins and bills.
CC.2.4.3.A.4 (Advanced)	Represent and interpret data using tally charts, tables,

pictographs, line plots, and bar graphs.

CC.2.4.3.A.5 (Advanced)	Determine the area of a rectangle and apply the concept to multiplication and to addition.
CC.2.4.3.A.6 (Advanced)	Solve problems involving perimeters of polygons and distinguish between linear and area measures.

STATE: PA Common Core Anchors and Eligible Content (May 2012)

M03.D-M.1.1.1 (Advanced)	Tell, show, and/or write time (analog) to the nearest minute.
M03.D-M.1.1.2 (Advanced)	Calculate elapsed time to the minute in a given situation (total elapsed time limited to 60 minutes or less).
M03.D-M.1.2.1 (Advanced)	Measure and estimate liquid volumes and masses of objects using standard units (cups [c], pints [pt], quarts [qt], gallons [gal], ounces [oz.], and pounds [lb]) and metric units (liters [l], grams [g], and kilograms [kg]).
M03.D-M.1.2.2 (Advanced)	Add, subtract, multiply, and divide to solve onestep word problems involving masses or liquid volumes that are given in the same units.
M03.D-M.1.2.3 (Advanced)	Use a ruler to measure lengths to the nearest quarter inch or centimeter.
M03.D-M.1.3.1 (Advanced)	Compare total values of combinations of coins (penny, nickel, dime, quarter) and/or dollar bills less than $5.00.
M03.D-M.1.3.2 (Advanced)	Make change for an amount up to $5.00 with no more than $2.00 change given (penny, nickel, dime, quarter, and dollar).
M03.D-M.1.3.3 (Advanced)	Round amounts of money to the nearest dollar.
M03.D-M.2.1.1 (Advanced)	Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories (scales limited to 1, 2, 5, and 10).
M03.D-M.2.1.2 (Advanced)	Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs (scales limited to 1, 2, 5, and 10). Example 1: (One-step) "Which category is the largest?" Example 2: (Two-step) "How many more are in category A than in category B?"
M03.D-M.2.1.3 (Advanced)	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units—whole numbers, halves, or quarters.
M03.D-M.2.1.4 (Advanced)	Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and tables. Example: Convert a tally chart to a bar graph.
M03.D-M.3.1.1 (Advanced)	Measure areas by counting unit squares (square cm, square m, square in., square ft, and non-standard square units).
M03.D-M.3.1.2 (Advanced)	Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
M03.D-M.4.1.1 (Advanced)	Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different perimeters. Use the same units throughout the problem.

This Curriculum Map Unit has no Topics to display

Unit: Geometry

STANDARDS

STATE: PA Common Core Standards (2012)

CC.2.3.3.A.1 (Advanced)	Identify, compare, and classify shapes and their attributes.
CC.2.3.3.A.2 (Advanced)	Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.

STATE: PA Common Core Anchors and Eligible Content (May 2012)

M03.C-G.1.1.1 (Advanced)	Explain that shapes in different categories may share attributes, and that the shared attributes can define a larger category. Example 1: A rhombus and a rectangle are both quadrilaterals since they both have exactly four sides. Example 2: A triangle

and a pentagon are both polygons since they are both multi-sided plane figures.

M03.C-G.1.1.2 (Advanced)   Recognize rhombi, rectangles, and squares as examples of quadrilaterals, and/or draw examples of quadrilaterals that do not belong to any of these subcategories.

M03.C-G.1.1.3 (Advanced)   Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. Example 1: Partition a shape into 4 parts with equal areas. Example 2: Describe the area of each of 8 equal parts as 1/8 of the area of the shape.

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