

Math - Fourth Grade Curriculum Map

Instructional Days: September and Mid-October		MODULE 1	Place Value of Multi-Digit Whole Numbers
Content (What Students Should Know)	Essential Questions	Skills (What Students Should Be Able To Do)	
Place Value of Multi-Digit Whole Numbers Module 1, Ls1-4 4.NBT.1; 4.NBT.2; 4.OA.1	How can we use estimation to check for reasonability of sums and differences?	Interpret a multiplication equation as a comparison.	
Comparing Multi-Digit Whole Numbers Module 1, Ls 5-6 4.NBT.2 B	How do we use symbols and variables to represent unknown quantities?	Recognize a digit represents 10 times the value of what it represents in the place to its right.	
Rounding Multi-Digit Whole Numbers Module 1, Ls 7-10 4.NBT.3	How do we determine the value of a digit?	Name numbers within 1 million by building understanding of the place value chart and placement of commas for naming base thousand units.	
Multi-Digit Whole Number Addition Module 1, Ls 11-12 4.OA.3; 4.NBT.4; 4.NBT.1; 4.NBT.2 D	What different ways can we write numbers?	Read and write multi-digit numbers using base ten numerals, number names, and expanded form.	
Multi-Digit Whole Number Subtraction Module 1, Ls 14-16 4.OA.3; 4.NBT.4; 4.NBT.1; 4.NBT.2		Compare numbers based on meanings of the digits using $>$, $<$, or $=$ to record the comparison.	
Addition and Subtraction Word Problems Lesson		Find 1, 10, and 100 thousand more and less than a given number.	
		Round multi-digit numbers to any place using the vertical number line.	
		Use place value understanding to round multi-digit numbers to any place value using real world applications.	
		Use place value understanding to fluently add multi-digit whole numbers using the standard addition algorithm, and apply the algorithm to solve word problems using tape diagrams.	
		Solve multi-step word problems using the standard addition algorithm modeled with tape diagrams, and assess the reasonableness of answers using rounding.	
		Use place value understanding to fluently decompose to smaller units multiple times in any place using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.	

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Module 1, Ls 17-19 4.OA.3; 4.NBT.4; 4.NBT.1; 4.NBT.2		Solve two-step and multi-step word problems using the standard subtraction algorithm fluently modeled with tape diagrams, and assess the reasonableness of answers using rounding. Solve additive compare word problems modeled with tape diagrams.
Resources and Major Assessments		
	<u>Web Site</u>	<u>Texts and Assessments</u>
Super Teacher Worksheets Math Playground XtraMath IXL	Splashmath Math Antics Embarc Ed Puzzle	Engage NY Prodigy Problematic Teacher created resources New York State Module Mid Module Assessment, End of Module Assessment Exit Tickets

4th Grade: Math Vocabulary

Module 1 - Place Value, Rounding and Algorithms for Addition and Subtraction

New or Recently Introduced Terms:

Ten thousands, hundred thousands: places on the place value chart

One millions, ten millions, hundred millions: places on the place value chart

Algorithm: 348

$$\begin{array}{r} \text{X } 5 \\ 1740 \end{array}$$

Variable: a symbol for a number we don't know yet (In $x + 2 = 6$, x is the variable.)

Sum: answer to an addition problem

Difference: answer to a subtraction problem

Rounding: approximating the value of a given number

Place value: the numerical value that a digit has by virtue of its position in a number

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0 the same digit, 7, changes value from 70 to 700 to 7000

Digit: a numeral between 0 and 9

Standard form: a number written in the format - 135

Expanded form: a number written in the format - $100 + 30 + 5 = 135$

Word form: a number written in the format - one hundred thirty-five

Tape diagram: bar diagram used to show whole and part relationships

Number line: a line marked with numbers at evenly spaced intervals

Bundling, making, renaming, changing, exchanging, regrouping, trading:

combining small units into bigger ones: 10 ones for 1 ten, 10 tens for 1 hundred, etc.

Unbundling, breaking, renaming, changing, regrouping, trading: breaking big units into smaller ones: 1 ten for 10 ones, 1 hundred for 10 tens, etc.

Number sentence: $4 + 3 = 7$

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Instructional Days: End of October		MODULE 2 Metric Unit Conversions	
Content (What Students Should Know)	Essential Questions	Skills (What Students Should Be Able To Do)	
Metric Unit Conversions Module 2, Ls 1-3 4.MD.1; 4.MD.2 Application of Conversions Module 2, Ls 4-5 4.MD.1; 4.MD.2	How do we convert between metric units? How do we find sums and differences of mixed units?	Express metric length, mass, and capacity measurements in smaller units Know and relate metric units to place value units. Use addition & subtraction to solve multi-step word problems involving length, mass, capacity.	
Resources and Major Assessments			
Super Teacher Worksheets Math Playground XtraMath IXL		<u>Web Sites</u> Splashmath Math Antics Embarc Ed Puzzle	<u>Engage NY</u> Engage NY Prodigy Problematic
<u>Texts and Assessments</u> Exit Tickets Teacher created resources New York State Module Mid Module Assessment, End of Module Assessment			

MODULE 2 : Unit Conversions and Problem Solving with Metric Measurement

New or Recently Introduced Terms:

Kilometer or km: a unit of measure for length

Mass: the measure of the amount of matter in an object

Milliliter or mL: a unit of measure for liquid volume

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Mixed Units: combination of different units (e.g., 3 m 43 cm)

=, <, >: (equal, less than, greater than)

Capacity: the maximum amount that something can contain

Convert: express the measurement in a different unit (e.g. convert grams to kilograms)

Distance: the length of the line segment that joins two parts

Equivalent: equal

Estimate: an approximation of the value of a number

Kilogram or kg, Gram or g: units that measure mass

Larger or smaller unit: used to compare units

Length: the measurement of something from end to end

Liter or L: unit that measure liquid volume

Measurement: dimensions, quantity, or capacity as determined by comparison with a standard

Meter or m, Centimeter or cm: units that measure length

Table: used to represent data

Weight: the measurement of how heavy something is

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Instructional Days: November- December		MODULE 3 Multi-Digit Multiplication and Division
Content (What Students Should Know)	Essential Questions	Skills (What Students Should Be Able To Do)
<p>Multiplicative Comparison Word Problems Module 3, Ls 1-3 4.OA.1; 4.OA.2; 4.OA.3; 4.MD.3</p> <p>Multiplication by 10, 100, and 1,000 Module 3, Ls 4-6 4.OA.1; 4.OA.2; 4.NBT.1</p> <p>Multiplication of up to Four Digits by Single-Digit Numbers Module 3, Ls 7-11 4.OA.2; 4.NBT.1</p> <p>Multiplication Word Problems Module 3, Ls 12-13 4.OA.1; 4.OA.2; 4.OA.3; 4.NBT.5</p> <p>Division of Tens and Ones with Successive Remainders Module 3, Ls 14-21 4.OA.3; 4.NBT.6;</p> <p>Reasoning with Divisibility Module 3, Ls 22-25</p>	<p>How can we use estimation to check reasonability of products and quotients?</p> <p>How are division and multiplication related to subtraction and addition?</p> <p>What patterns can we find in multiplication and division facts?</p> <p>How do you multiply whole numbers?</p> <p>How do you interpret remainders?</p>	<p>Investigate and use the formulas for area and perimeter of rectangles. Demonstrate understanding of area and perimeter formulas by solving multi-step real world problems and multiplicative comparison word problems.</p> <p>Interpret and represent patterns when multiplying by 10, 100, and 1,000 in arrays and numerically. Multiply multiples of 10, 100, and 1,000 by single digits, recognizing patterns. Multiply two-digit multiples of 10 by two-digit multiples of 10 with the area model.</p> <p>Use place value disks to represent two-digit by one-digit multiplication. Extend the use of place value disks to represent three- and four-digit by one-digit multiplication. Multiply three- and four-digit numbers by one-digit numbers applying the standard algorithm. Connect the area model and the partial products method to the standard algorithm.</p> <p>Solve two-step word problems, including multiplicative comparison. Use multiplication, addition, or subtraction to solve multi-step word problems.</p> <p>Solve division word problems with/without remainders. Understand and solve division problems with a remainder using the array and area models. Understand and solve two-digit dividend division problems with a remainder in the ones place by using place value disks. Represent and solve division problems requiring decomposing a remainder in the tens. Find whole number quotients and remainders. Explain remainders by using place value understanding and models.</p> <p>Find factor pairs for numbers to 100, and use understanding of factors to define prime and composite.</p>

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<p>4.OA.4</p> <p>Division of Thousands, Hundreds, Tens, and Ones Module 3, Ls 26-30 4.OA.3; 4.NBT.1; 4.NBT.6</p> <p>Multiplication of Two-Digit by Two-Digit Numbers Module 3, Ls 34-38 4.OA.3; 4.MD.3</p>		<p>Use division and the associative property to test for factors and observe patterns.</p> <p>Determine if a whole number is a multiple of another number.</p> <p>Explore properties of prime and composite numbers to 100 by using multiples.</p> <p>Divide multiples of 10, 100, and 1,000 by single-digit numbers.</p> <p>Represent and solve division problems with up to a three-digit dividend numerically and with place value disks requiring decomposing a remainder in the hundreds place.</p> <p>Represent and solve three-digit dividend division with divisors of 2, 3, 4, and 5 numerically.</p> <p>Represent numerically four-digit dividend division with divisors of 2, 3, 4, and 5, decomposing a remainder up to three times.</p> <p>Solve division problems with a zero in the dividend or with a zero in the quotient.</p> <p>Interpret division word problems as either <i>number of groups unknown</i> or <i>group size unknown</i>.</p> <p>Interpret and find whole number quotients and remainders to solve one-step division word problems with larger divisors of 6, 7, 8, and 9.</p> <p>Explain the connection of the area model of division to the long division algorithm for three- and four-digit dividends.</p> <p>Multiply two-digit multiples of 10 by two-digit numbers using a place value chart.</p> <p>Multiply two-digit multiples of 10 by two-digit numbers using the area model.</p> <p>Multiply two-digit by two-digit numbers using four partial products.</p> <p>Transition from four partial products to the standard algorithm for two-digit by two-digit multiplication.</p>												
Resources and Major Assessments														
<p style="text-align: center;"><u>Websites</u></p> <table border="0"> <tr> <td>Super Teacher Worksheets</td> <td>Splashmath</td> <td>Engage NY</td> </tr> <tr> <td>Math Playground</td> <td>Math Antics</td> <td>Prodigy</td> </tr> <tr> <td>XtraMath</td> <td>Embarc</td> <td>Problematic</td> </tr> <tr> <td>IXL</td> <td>Ed Puzzle</td> <td></td> </tr> </table>		Super Teacher Worksheets	Splashmath	Engage NY	Math Playground	Math Antics	Prodigy	XtraMath	Embarc	Problematic	IXL	Ed Puzzle		<p style="text-align: center;"><u>Texts and Assessments</u></p> <p>Exit</p> <p>Teacher created resources</p> <p>New York State Module 3</p> <p>Mid Module Assessment, End of Module Assessment</p>
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Module 3 - Multi-Digit Multiplication and Division

New or Recently Introduced Terms:

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Associative Property: You can add or multiply regardless of how the numbers are grouped or where the parentheses are located. o $[96 = 3 \times (4 \times 8) = (3 \times 4) \times 8]$

Composite Number: positive integer having three or more whole number factors o (20 is a composite number because it has 6 factors: 1, 2, 4, 5, 10, 20.)

Distributive Property: break apart a larger number into 2 parts to make the multiplication easier, then multiply each of the 2 parts by the other factor o $[64 \times 27 = (60 \times 20) + (60 \times 7) + (4 \times 20) + (4 \times 7)]$

Divisor: the number by which another number is divided Partial Product: an easier way to multiply by breaking down one of the factors into 2 smaller parts o $(24 \times 6 = (20 \times 6) + (4 \times 6) = 120 + 24)$ The partial products are 120 and 24 which are then added together.

Prime Number: positive integer having only 2 whole number factors: one and itself o (3 is a prime number; it can only be divided by the numbers 1 and 3)

Remainder: the number that is left over when one integer is divided by another o $29 \div 6 = 4$ with a remainder of 5

Algorithm: a step-by-step process for solving a problem

Area: the amount of space inside a flat object

Area Model: a model for multiplication problems, in which length and width of a rectangle represent the factors

Compare: to find similarity or differences between 2 things

Distribute: decompose an unknown product in terms of two known products

Divide/Division: partitioning, or breaking, a total into equal groups to show how many equal groups add up to a specific number o $15 \div 5 = 3$

Equation: a statement that the values of two mathematical expressions are equal using the = sign o $15 = 12 + 3$

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Factors: numbers that can be multiplied together to get other numbers o The factors of 12 are 1, 2, 3, 4, 6, and 12.

Mixed units: a combination of more than one unit o (1 ft 3 in or 4 lb 13 oz)

Multiple: product of a given number and any other whole number o 12 is a multiple of 1 x 12.

Perimeter: length of a continuous line forming the boundary of a closed geometric figure

Place Value: the numerical value that a digit has by virtue of its position in a number o 1,545 – the value of the 1 is 1,000 because it is in the thousands place

Product: the result of multiplication o For $3 \times 9 = 27$, 27 is the product.

Quotient: the result of division o For $15 \div 5 = 3$, 3 is the quotient.

Rectangular Array: an arrangement of a set of objects into rows and columns

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Instructional Days: January		MODULE 4 Angle Measures and Plane Figures	
Content (What Students Should Know)	Essential Questions	Skills (What Students Should Be Able To Do)	
<p>Lines and Angles Module 4, Ls 1-4 4.G.1</p> <p>Angle Measurement Module 4, Ls 5-8 4.MD.5; 4.MD.6</p> <p>Problem Solving with the Addition of Angle Measures Module 4, Ls 9-11 4.MD.7</p> <p>Two-Dimensional Figures and Symmetry Module 4, Ls 12-16 4.G.1; 4.G.2; 4.G.3</p>	<p>How do you know if a shape is symmetrical?</p> <p>How do you measure angles?</p> <p>How do you find an unknown angle?</p> <p>How do we classify 2-dimensional shapes?</p>	<p>Identify and draw points, lines, line segments, rays, and angles. Recognize them in various contexts and familiar figures.</p> <p>Use right angles to determine whether angles are equal to, greater than, or less than right angles. Draw right, obtuse, and acute angles.</p> <p>Identify, define, and draw perpendicular lines.</p> <p>Identify, define, and draw parallel lines.</p> <p>Use a circular protractor to understand a 1-degree angle as $\frac{1}{360}$ of a turn. Explore benchmark angles using the protractor.</p> <p>Use varied protractors to distinguish angle measure from length measurement.</p> <p>Measure and draw angles. Sketch given angle measures and verify with a protractor.</p> <p>Identify and measure angles as turns and recognize them in various contexts.</p> <p>Decompose angles using pattern blocks.</p> <p>Use the addition of adjacent angle measures to solve problems using a symbol for the unknown angle measure.</p> <p>Recognize lines of symmetry for given two-dimensional figures. Identify line-symmetric figures and draw lines of symmetry.</p> <p>Analyze and classify triangles based on side length, angle measure, or both.</p>	
Resources and Major Assessments			
<p>Super Teacher Worksheets Math Playground XtraMath IXL</p>	<p><u>Web Sites</u></p> <p>Splashmath Math Antics Embarc Ed Puzzle</p>	<p>Engage NY Prodigy Problematic</p>	<p><u>Texts and Assessments</u></p> <p>Exit Tickets Teacher created resources New York State Module Mid Module Assessment, End of Module Assessment</p>

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Module 4 - Angle Measure and Plane Figures

New or Recently Introduced Terms:

Acute angle: angle with a measure of less than 90 degrees

Acute triangle: triangle with all interior angles measuring less than 90 degrees

Adjacent angle: two angles with a common side and a common point

Angle: union of two different rays sharing a common vertex

Arc: portion of a circle

Collinear: three or more points on a line

Complementary angles: two angles with a sum of 90 degrees

Diagonal: straight lines joining two opposite corners of a straight-sided shape

Equilateral triangle: triangle with three sides of equal length

Figure: set of points in the plane

Interior of an angle: the angle inside a shape

Intersecting lines: lines that contain at least one point in common

Isosceles triangle: triangle with at least two equal sides; figure shows the mark meaning equal sides

Length of an arc: circular distance around the arc

Line: straight path with no thickness that extends in both directions without end

Line of symmetry: line through a figure that creates two halves that match up exactly

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Line segment: part of a line connecting two points; has definite end points

Obtuse angle: angle with a measure greater than 90 degrees but less than 180 degrees

Obtuse triangle: triangle with an interior obtuse angle

Parallel: two lines in a plane that do not intersect

Perpendicular: two lines that intersect forming a 90° angle

Point: a precise location

Protractor: instrument used in measuring or sketching angles

Ray: a line with a start point and no end point; goes on forever in one direction

Right angle: angle formed by perpendicular lines, measuring 90 degrees

Right triangle: triangle that contains one 90° degree angle

Scalene triangle: triangle with no sides or angles equal

Straight angle: angle that measures 180 degrees

Supplementary angles: two angles with a sum of 180 degrees

Triangle: three non-collinear points (vertices) and the three line segments (sides) that connect them

Vertex (plural is vertices): a point where two lines meet, such as in an angle or the corner of a triangle

Vertical angles: When two lines intersect, any two non-adjacent angles formed by those lines are called vertical angles or vertically opposite angles.

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Decompose: process of separating something into smaller components

Parallelogram: quadrilateral with two pairs of parallel sides

Polygon: closed two-dimensional figure with straight sides

Quadrilateral: polygon with four sides

Rectangle: quadrilateral with four right angles

Rhombus: quadrilateral with all sides of equal length

Square: rectangle with all sides of equal length

Sum: result of adding two or more numbers

Trapezoid: quadrilateral with at least one pair of parallel sides

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Instructional Days: February - March- April		MODULE 5 Fraction Equivalence, Ordering and Operations
Content (What Students Should Know)	Essential Questions	Skills (What Students Should Be Able To Do)
<p>Decomposition and Fraction Equivalence Module 5, Ls 1-6 4.NF.3b; 4.NF.4a; 4.NF.3a</p> <p>Fraction Equivalence Using Multiplication and Division Module 5, Ls 7-11 4.NF.1; 4.NF.3b</p> <p>Fraction Comparison Module 5, Ls 12-15 4.NF.2</p> <p>Fraction Addition and Subtraction Module 5, Ls 16-21 4.NF.3a; 4.NF.3d; 4.NF.1; 4.MD.2</p> <p>Extending Fraction Equivalence to Fractions Greater Than 1 Module 5, Ls 22-28 4.NF.1; 4.NF.2; 4.NF.3; 4.NBT.6; 4.NF.4a; 4.MD.4</p> <p>Addition and Subtraction of Fractions by Decomposition Module 5, Ls 29-34</p>	<p>How do fractions relate to other numbers?</p> <p>How do we add and subtract fractions and mixed numbers?</p> <p>How do we compare fractions?</p> <p>How do we express fractions as the sum of their parts?</p>	<p>Decompose fractions as a sum of unit fractions using tape diagrams. Decompose non-unit fractions and represent them as a whole number times a unit fraction using tape diagrams. Decompose fractions into sums of smaller unit fractions using tape diagrams. Decompose unit fractions using area models to show equivalence. Decompose fractions using area models to show equivalence.</p> <p>Use the area model and multiplication to show the equivalence of two fractions. Use the area model and division to show the equivalence of two fractions. Explain fraction equivalence using a tape diagram and the number line, and relate that to the use of multiplication and division.</p> <p>Reason using benchmarks to compare two fractions on the number line. Find common units or number of units to compare two fractions.</p> <p>Use visual models to add and subtract two fractions with the same units. Use visual models to add and subtract two fractions with the same units, including subtracting from one whole. Add and subtract more than two fractions. Solve word problems involving addition and subtraction of fractions. Use visual models to add two fractions with related units using the denominators 2, 3, 4, 5, 6, 8, 10, and 12.</p> <p>Add a fraction less than 1 to, or subtract a fraction less than 1 from, a whole number using decomposition and visual models. Add and multiply unit fractions to build fractions greater than 1 using visual models.</p>

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<p>4.NF.3c; 4.NF.3d; 4.MD.4; 4.MD.2</p> <p>Repeated Addition of Fractions as Multiplication Module 5, Ls 35-40 4.NF.4; 4.MD.4; 4.OA.2; 4.MD.2</p> <p>Exploring a Fraction Pattern Module 5, Ls 41 4.OA.5</p>		<p>Decompose and compose fractions greater than 1 to express them in various forms. Compare fractions greater than 1 by reasoning using benchmark fractions. Compare fractions greater than 1 by creating common numerators or denominators. Solve word problems with line plots.</p> <p>Estimate sums and differences using benchmark numbers. Add a mixed number and a fraction. Add mixed numbers. Subtract a fraction from a mixed number. Subtract a mixed number from a mixed number.</p> <p>Represent the multiplication of n times a/b as $(n \times a)/b$ using the associative property and visual models. Find the product of a whole number and a mixed number using the distributive property. Solve multiplicative comparison word problems involving fractions. Solve word problems involving the multiplication of a whole number and a fraction including those involving line plots. Find and use a pattern to calculate the sum of all fractional parts between 0 and 1. Share and critique peer strategies.</p>
<p>Resources and Major Assessments</p>		
<p>Super Teacher Worksheets Math Playground XtraMath IXL</p>	<p><u>Web Sites</u> Splashmath Math Antics Embarc Ed Puzzle</p>	<p><u>Engage NY</u> Prodigy Problematic</p> <p><u>Texts and Assessments</u> Exit Tickets Teacher created resources New York State Module Mid Module Assessment, End of Module Assessment</p>

Module 5 - Fraction Equivalence, Ordering and Operations

New or Recently Introduced Terms:

Benchmark :standard or reference point by which something is measured

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Common denominator :when two or more fractions have the same denominator

Denominator :bottom number in a fraction

Line plot :display of data on a number line, using an x or another mark to show frequency

Mixed number: number made up of a whole number and a fraction

Numerator :top number in a fraction

Compose :change a group of unit fractions with the same denominator to a single non-unit fraction or mixed number

Decompose :change a non-unit fraction or mixed number to the sum of its parts or unit fractions **Equivalent fractions** :fractions that name the same size or amount

Fraction :e.g., $\frac{1}{3}$, $\frac{2}{3}$, $\frac{3}{3}$, $\frac{4}{3}$

Fraction greater than 1 :a fraction with a numerator that is greater than the denominator **Fractional unit** :e.g., half, third, fourth

Multiple :product of a given number and any other whole number

Non-unit fraction :fractions with numerators other than 1

Unit fraction :fractions with numerator 1

Unit interval :e.g., the interval from 0 to 1, measured by length

Whole :e.g., 2 halves, 3 thirds, 4 fourths

=, <, >: equal to, less than, greater than

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Instructional Days: May		MODULE 6 Decimal Fractions	
Content (What Students Should Know)	Essential Questions	Skills (What Students Should Be Able To Do)	
<p>Exploration of Tenths Module 6, Ls 1-3 4.NF.6; 4.NBT.1; 4.MD.1</p> <p>Tenths & Hundredths Module 6, Ls 4-8 4.NF.5; 4NF.6; 4.NBT.1; 4.NF.1; 4.NF.7; 4.MD.1</p> <p>Decimal Comparison Module 6, Ls 9-11 4.NF.7; 4.MD.1; 4.MD.2</p> <p>Addition with Tenths and Hundredths Module 6, Ls 12-14 4.NF.5; 4.NF.6; 4.NF.3c; 4.MD.1</p> <p>Money Amounts as Decimal Numbers Module 6, Ls 15-16 4.MD.2; 4.NF.5; 4.NF.6</p>	<p>What does a decimal represent?</p> <p>How do we read/write decimals?</p> <p>How do we add/subtract decimals, and decimals as money?</p>	<p>Use metric measurement to model the decomposition of one whole into tenths</p> <p>Use metric measurements and area models to represent tenths as fractions greater than 1 and decimal numbers</p> <p>Represent mixed numbers with units of tens, ones, and tenths with number disks on a number line and in expanded form</p> <p>Use meters to model the decomposition of one whole into hundredths</p> <p>Model the equivalence of tenths and hundredths using an area model & number disks</p> <p>Use area model and number line to represent mixed numbers</p> <p>Model mixed numbers with units of hundreds, tens, ones, tenths & hundredths in expanded form</p> <p>Use understanding of fraction equivalence to investigate decimal numbers on a place value chart expressed in different units</p> <p>Use place value chart and metric measurements to compare decimals</p> <p>Use area models and number line to compare decimal numbers using $<$, $>$, and $=$</p> <p>Compare and order mixed numbers in various forms</p> <p>Apply understanding of fraction equivalence to add tenths and hundredths</p> <p>Add decimal numbers by converting to fraction form</p> <p>Solve word problems involving the addition of measurements in decimal form</p> <p>Express money amounts given in various forms as decimal numbers</p> <p>Solve word problems involving money</p>	
Resources and Major Assessments			

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	<u>Web Sites</u>		<u>Texts and Assessments</u>
Super Teacher Worksheets	Splashmath	Engage NY	Exit Tickets
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XtraMath	Embarc	Problematic	New York State Module
IXL	Ed Puzzle		Mid Module Assessment, End of Module Assessment

Module 6 - Decimal Fractions

New or Recently Introduced Terms:

Decimal number: number written in place value units that are powers of 10

Decimal expanded form: e.g., $(2 \times 10) + (4 \times 1) + (5 \times 0.1) + (9 \times 0.01) = 24.59$

Decimal fraction: fraction with a denominator of 10, 100, 1,000, etc.

Decimal point: period used to separate the whole number part from the fractional part of a decimal number

Fraction expanded form: e.g., $(2 \times 10) + 94 \times 1) + (5 \times) + (9 \times) = 24)$

Expanded form: e.g., $100 + 30 + 5 = 135$

Fraction: numerical quantity that is not a whole number, e.g., $1/3$

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Instructional Days: June		MODULE 7 Exploring Measurement with Multiplication	
Content (What Students Should Know)	Essential Questions	Skills (What Students Should Be Able To Do)	
<p>Measurement Conversion Tables Module 7, Ls 1-5 4.OA.1; 4.OA.2; 4.MD.1; 4.NBT.5; 4.MD.2</p> <p>Problem Solving with Measurement Module 7, Ls 6-11 4.OA.2; 4.OA.3; 4.MD.1; 4.MD.2; 4.NBT.5; 4.NBT.6</p> <p>Investigation of Measurements Expressed as Mixed Numbers Module 7, Ls 12-14 4.OA.3; 4.MD.1; 4.MD.2; 4.NBT.5; 4.NBT.6</p>	<p>How do we convert between customary units?</p> <p>How do we find sums/differences of mixed units?</p>	<p>Create conversion tables for length, weight, and capacity units using measurement tools, and use the tables to solve problems. Create conversion tables for units of time, and use the tables to solve problems. Solve multiplicative comparison word problems using measurement conversion tables. Share and critique peer strategies.</p> <p>Solve Problems involving mixed units of capacity. Solve problems involving mixed units of length. Solve problems involving mixed units of weight. Solve problem involving mixed units of time. Solve multi-step measurement word problems.</p> <p>Use measurement tools to convert mixed number measurements to smaller units. Solve multi-step word problems involving converting mixed number measurements to a single unit.</p>	
Resources and Major Assessments			
<p>Super Teacher Worksheets Math Playground XtraMath IXL</p>	<p><u>Web Sites</u> Splashmath Math Antics Embarc Ed Puzzle</p>	<p>Engage NY Prodigy Problematic</p>	<p><u>Texts and Assessments</u> Exit Tickets Teacher created resources New York State Module Mid Module Assessment, End of Module Assessment</p>

Module 7 - Exploring Measurement with Multiplication

New or Recently Introduced Terms:

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Customary system of measurement: measurement system commonly used in the United States that includes such units as yards, pounds, and gallons

Cup: (c) customary unit of measure for liquid volume

Gallon: (gal) customary unit of measure for liquid volume

Metric system of measurement: base ten system of measurement used internationally that includes such units as meters, kilograms, and liters

Ounce: (oz) customary unit of measure for weight

Pint: (pt) customary unit of measure for liquid volume

Pound: (lb) customary unit of measure for weight

Quart: (qt) customary unit of measure for liquid volume

Capacity: the maximum amount that a container can hold

Convert: to express a measurement in a different unit

Distance: the length of the line segment joining two points

Equivalent: the same

Foot: (ft) customary unit of measure for length

Hour: (hr) unit of measure for time

Inch: customary unit of measure for length, 12 inches = 1 foot

Interval: time passed or a segment on the number line

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Gram (g), kilogram (kg): metric units of measure for mass, not distinguished from weight at this time

Length: the measurement of something from end to end

Liter (L), milliliter (mL): metric units of measure for liquid volume

Measurement: dimensions, quantity, or capacity as determined by comparison with a standard

Meter (m), centimeter (cm), kilometer (km): metric units of measure for length

Minute: (min) unit of measure for time Mixed units: e.g., 3 m 43 cm

Second: (sec) unit of measure for time

Table: used to represent data

Weight: the measurement of how heavy something is

Yard: (yd) customary unit of measure for length