

# Wyoming Department of Education Required Virtual Education Course Syllabus

## Natrona County School District # 1

Program Name	Natrona Virtual Learning	Content Area	MA
Course ID	NVA030301	Grade Level	3
Course Name	Math Plus Purple WY	of Credits	
SCE Code	30301	Curriculum Type	K1 Inc

### COURSE DESCRIPTION

*This research-based course focuses on computational fluency, conceptual understanding, and problem-solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success. This course for students in Grade 3 provides a quick overview of whole number addition and subtraction, but has a greater focus on whole number multiplication and division, encompassing early algebraic thinking. Decimals are studied in relationship to place value and money, and fractions are addressed through multiple representations and probability. Students are introduced to specific methods and strategies to help them become more effective problem solvers. Geometry and measurement are addressed through the study of two- and three-dimensional shapes, early work with perimeter, area, and volume, and applying measuring techniques to time, length, capacity, and weight.*

### WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	<a href="#">BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets</a>
3.OA.1	Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as $5 \times 7$ .
3.OA.2	Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as $5 \times 7$ .
3.OA.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$ , $5 = \underline{\quad} \div 3$ , $6 \times 6 = ?$ .

3.OA.5	Apply properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$ then $15 \times 2 = 30$ , or by $5 \times 2 = 10$ then $3 \times 10 = 30$ . (Associative property of multiplication.) Knowing that $4 \times 4 = 16$ , one can find $4 \times 5 = 20$ as $(5 \times 2) + (8 \times 2) = 10 + 16 = 26$ . (Distributive property.) (Students need not use formal terms for these properties.)
3.OA.6	Understand division as an unknown-factor problem. For example, divide $32 \div 8$ by finding the number that makes 32 when multiplied by 8.
3.OA.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $4 \times 8 = 32$ , one knows $32 \div 4 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of one-digit numbers.
3.OA.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).)
3.OA.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
3.NBT.1	Use place value understanding to round whole numbers to the nearest 10 or 100.
3.NBT.2	Fluently add and subtract within 100 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. (A range of algorithms may be used.)
3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., $9 \times 80 = 720$ , $5 \times 60 = 300$ ) using strategies based on place value and properties of operations. (A range of algorithms may be used.)
3.NF.1	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is

	partitioned into equal parts; understand a fraction $a/b$ as the quantity formed by $a$ parts of size $1/b$ . (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)
3.NF.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)
3.NF.3	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)
3.MD.1	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
3.MD.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). (Excludes compound units such as $\text{cm}^3$ and finding the geometric volume of a container.) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems (problems involving notions of “times as much.”))
3.MD.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent pets.
3.MD.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.
3.MD.5	Recognize area as an attribute of plane figures and understand concepts of area measurement. a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by $n$ unit squares is said to have an area of $n$ square units.

3.MD.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
3.MD.7	Relate area to the operations of multiplication and addition.
3.MD.8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different area or with the same area and different perimeter.
3.G.1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
3.G.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part is $\frac{1}{4}$ of the area of the shape.

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
Unit 1 Whole Number Sense Lesson Numbers Through 1,000		Count aloud whole numbers through 1,000. Identify the place value for each digit in whole numbers through 1,000.
Unit 1 Whole Number Sense Lesson Compare and Order Numbers Through 1,000		Compare whole numbers through 1,000. Compare whole numbers through 100 by using the symbols $<$ , $=$ , $>$ . Order three or more whole numbers through 1,000. Demonstrate understanding of the result of subtracting zero from a given quantity. Demonstrate automatic recall of subtraction facts with minuends through 20. Given a number of objects up through 20, show how those objects can be grouped and regrouped to illustrate the associative property. Estimate quantities and numbers of objects.

<p>Unit 1 Whole Number Sense Lesson Round Numbers Through 1,000</p>	<p>3.NBT.1</p>	<p>Round whole numbers through 1,000 to the nearest hundred. Round whole numbers through 1,000. Solve subtraction problems with two-digit minuend and a one-digit subtrahend by using regrouping. Order three or more whole numbers through 500 by using the symbols <math>&lt;</math>, <math>=</math>, <math>&gt;</math>. Identify the place value for each digit in whole numbers through 500. Solve addition problems with one- and two-digit number with sums through 100 by using regrouping. Round numbers through 10,000. Compare whole numbers through 1,000. Identify the place value for each digit in whole numbers through 1,000. Round whole numbers through 1,000 to the nearest ten.</p>
<p>Unit 1 Whole Number Sense Lesson Core Focus</p>	<p>3.NBT.1</p>	<p>Compare whole numbers through 1,000. Order three or more whole numbers through 1,000. Round whole numbers through 1,000 to the nearest hundred. Round whole numbers through 1,000 to the nearest ten.</p>
<p>Unit 1 Whole Number Sense Lesson Unit Review</p>		<p>Round whole numbers through 1,000 to the nearest hundred. Compare whole numbers through 1,000. Order three or more whole numbers through 1,000. Round whole numbers through 1,000 to the nearest ten. Identify the place value for each digit in whole numbers through 1,000. Count aloud whole numbers through 1,000.</p>
<p>Unit 1 Whole Number Sense Lesson Unit Checkpoint</p>		
<p>Unit 1 Whole Number Sense Lesson Extended Problems: Reasoning</p>		<p>Analyze complex problems using mathematical knowledge and skills.</p>

<p>Unit 2 Whole Number Addition and Subtraction Lesson 1 Odd and Even Number Patterns</p>	<p>3.OA.9 3.NBT.2</p>	<p>Read whole numbers through 500. Recognize that the equals sign shows an equality between two expressions. Count aloud whole numbers through 500. Arrange objects in space by proximity, such as near, far, up, down, below, or above. Recognize and solve a story problem in which one quantity must be changed to equal another quantity. Demonstrate an understanding of how addition and subtraction affect whole numbers. Recognize and solve a story problem in which a quantity changes by addition or subtraction. Determine the sum or difference of two whole numbers. Recognize and solve a story problem in which two quantities are compared by the use of addition or subtraction. Recognize and solve a story problem in which two quantities are combined. Identify odd and even numbers and describe their characteristics. Count by 2s through 100.</p>
<p>Unit 2 Whole Number Addition and Subtraction Lesson 2 Addition and Subtraction Answers</p>		<p>Compare objects by weight (heavier and lighter). Identify 10 more than or 10 less than a given number. Demonstrate and explain the meaning of addition as putting together or combining sets. Demonstrate understanding that the order in which numbers are added does not affect the sum. Estimate quantities and numbers of objects. Find the sum or difference of two whole numbers with sums and minuends up through 1,000. Find the sum or difference of whole numbers with sums and minuends up through 100.</p>
<p>Unit 2 Whole Number Addition and Subtraction Lesson 3 Combine and Change Problems</p>	<p>3.OA.8</p>	<p>Recognize and solve word problems involving sums or minuends up through 100 in which one quantity changes by addition or subtraction. Recognize and solve word problems involving sums up through 100 in which two quantities are combined. Recognize and solve a story problem in which two quantities are combined. Recognize and solve a story problem in which a quantity changes by addition or subtraction.</p>

<p>Unit 2 Whole Number Addition and Subtraction Lesson 4 Compare and Equalize Story Problems</p>	<p>3.OA.8</p>	<p>Recognize and solve a story problem in which one quantity must be changed to equal another quantity. Recognize and solve a story problem in which two quantities are compared by the use of addition or subtraction. Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of subtraction facts with minuends through 20.</p>
<p>Unit 2 Whole Number Addition and Subtraction Lesson 5 Core Focus</p>	<p>3.OA.8 3.OA.9 3.NBT.2</p>	<p>Assess the reasonableness of answers using mental computation and estimation strategies including rounding. Solve two-step word problems using addition and subtraction. Use models or drawings to show how addition and subtraction are inversely related.</p>
<p>Unit 2 Whole Number Addition and Subtraction Lesson 6 Unit Review</p>		<p>Determine the sum or difference of two whole numbers. Recognize and solve a story problem in which a quantity changes by addition or subtraction. Recognize and solve a story problem in which one quantity must be changed to equal another quantity. Recognize and solve a story problem in which two quantities are compared by the use of addition or subtraction. Recognize and solve a story problem in which two quantities are combined. Identify odd and even numbers and describe their characteristics.</p>
<p>Unit 2 Whole Number Addition and Subtraction Lesson 7 (Optional) Your Choice</p>		<p>Identify and master skills and tasks from earlier in the course that have not yet been mastered.</p>

Unit 2 Whole Number Addition and Subtraction Lesson 8 Unit Checkpoint		
Unit 2 Whole Number Addition and Subtraction Lesson 9 Extended Problems: Real-World Application		Analyze complex problems using mathematical knowledge and skills.
Unit 3 Whole Number Multiplication Sense Lesson Model and Explain Multiplication	3.OA.1	Use objects or sketches to solve a multiplication problem. Use a model to explain multiplication as repeated addition of the same quantity. Use concrete objects or sketches to model and explain multiplication as repeated addition. Use concrete objects or sketches of arrays to model multiplication problems. Demonstrate automatic recall of addition facts with sums through 20. Explain and apply the associative property of multiplication. Use an area model to explain multiplication. Demonstrate an understanding of how multiplication affects whole numbers. Explain and apply the commutative property of multiplication. Explain and apply the zero property of multiplication. Explain and apply the multiplication property of 1. Demonstrate automatic recall of multiplication facts.
Unit 3 Whole Number Multiplication Sense Lesson Area Models for Multiplication (A)	3.OA.3	Solve addition problems by filling in a missing number or numbers in a given number sentence. Use tally charts and bar graphs to compare data (for example, find largest, smallest, most often, least often). Recognize and solve word problems involving sums or minuends up through 100 in which one quantity changes by addition or subtraction. Use an area model to explain multiplication. Use concrete objects or sketches of arrays to model multiplication problems.
Unit 3 Whole Number Multiplication Sense Lesson Area Models for Multiplication (B)	3.OA.3 3.OA.5. 3.MD.7	Use an area model to explain multiplication.
Unit 3 Whole Number Multiplication Sense Lesson (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.

Unit 3 Whole Number Multiplication Sense Lesson Understand Multiplication	3.OA.1 3.OA.9	Demonstrate an understanding of how multiplication affects whole numbers. Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of subtraction facts with minuends through 20. Use objects or sketches to solve a multiplication problem.
Unit 3 Whole Number Multiplication Sense Lesson Commutative Property of Multiplication	3.OA.5.	Demonstrate understanding that the order in which numbers are multiplied does not affect the product. Explain and apply the commutative property of multiplication.
Unit 3 Whole Number Multiplication Sense Lesson Multiplication Facts (A)	3.OA.9	Demonstrate understanding that any number multiplied by 1 results in the same number ( $n \times 1 = n$ ). Demonstrate understanding of the rule for multiplying by zero. Explain and apply the multiplication property of 1. Explain and apply the zero property of multiplication. Demonstrate automatic recall of multiplication facts. Tell time to the nearest half hour. Find the sum of two whole numbers with sums up through 500. Use decimal notation for money. Identify odd and even numbers and describe their characteristics.
Unit Whole Number Multiplication Sense Lesson Multiplication Facts (B)	3.OA.4 3.OA.5 3.OA.7	Demonstrate automatic recall of subtraction facts with minuends through 20. Demonstrate automatic recall of multiplication facts. Demonstrate automatic recall of multiplication facts for 2 through $10 \times 2$ . Demonstrate understanding that the order in which numbers are multiplied does not affect the product. Demonstrate automatic recall of multiplication facts for 5 through $10 \times 5$ .
Unit 3 Whole Number Multiplication Sense Lesson Multiplication Facts (C)	3.OA.4 3.OA.7	Demonstrate automatic recall of multiplication facts. Demonstrate automatic recall of multiplication facts for 5 through $10 \times 5$ . Demonstrate automatic recall of multiplication facts for 2 through $10 \times 2$ . Demonstrate understanding that the order in which numbers are multiplied does not affect the product.
Unit 3 Whole Number Multiplication Sense Lesson 1 Multiplication Facts (D)	3.OA.4 3.OA.7	Demonstrate automatic recall of multiplication facts. Demonstrate understanding that the order in which numbers are multiplied does not affect the product.
Unit 3 Whole Number Multiplication Sense Lesson 1 Multiplication Facts (E)	3.OA.4 3.OA.7	Demonstrate automatic recall of multiplication facts.
Unit 3 Whole Number		Identify and master skills and tasks from earlier in the course that have not yet been mastered.

Multiplication Sense Lesson 1 (Optional) Your Choice		
Unit 3 Whole Number Multiplication Sense Lesson 1 Associative Property	3.OA.5	Explain and apply the associative property of multiplication. Demonstrate understanding of the associative properties of addition and multiplication.
Unit 3 Whole Number Multiplication Sense Lesson 1 Core Focus		Explain and apply the associative property of multiplication. Explain and apply the distributive property of multiplication. Explain and apply the commutative property of multiplication. Demonstrate automatic recall of multiplication facts.
Unit 3 Whole Number Multiplication Sense Lesson 1 Unit Review		Use a model to explain multiplication as repeated addition of the same quantity. Demonstrate automatic recall of multiplication facts. Explain and apply the distributive property of multiplication. Explain and apply the commutative property of multiplication. Explain and apply the associative property of multiplication. Use an area model to explain multiplication. Use objects or sketches to solve a multiplication problem. Explain and apply the multiplication property of 1. Explain and apply the zero property of multiplication.
Unit 3 Whole Number Multiplication Sense Lesson 1 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 3 Whole Number Multiplication Sense Lesson 1 Unit Checkpoint		

<p>Unit 3 Whole Number Multiplication Sense Lesson 1 Extended Problems: Real-World Application</p>		<p>Solve word problems involving measurements and arrays using multiplication or division within 100.          Explain and apply the associative property of multiplication within 100.          Explain and apply the distributive property of multiplication within 100.          Solve two-step word problems limited to whole numbers.          Represent a data set with up to four categories on a picture graph (with single-unit scale).          Use objects or sketches to solve a multiplication problem.          Represent a data set with up to four categories on a bar graph (with single-unit scale).          Apply mathematical knowledge and skills to evaluate and analyze real-world situations.          Explain the meaning of a multiplication equation with a product within 100.          Explain and apply the commutative property of multiplication within 100.          Solve simple compare problems using information from a bar graph.          Solve simple put-together problems using information from a bar graph.          Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ (dollars) and ¢ (cents) symbols appropriately.</p>
<p>Unit 4 Whole Number Multiplication Lesson 1 Multiplication Story Problems</p>	<p>3.OA.1 3.OA.3</p>	<p>Determine a missing number in an equation or an inequality.          Demonstrate automatic recall of multiplication facts.          Use models and math symbols to represent multiplication.          Use objects or sketches to solve a multiplication story problem.          Solve a multiplication problem involving a multidigit factor and a one-digit factor.          Use multiplication to solve a story problem that involves equal measures.          Create a story problem that can be represented by a multiplication number sentence.          Use multiplication to solve a story problem that involves equal groups.</p>
<p>Unit 4 Whole Number Multiplication Lesson 2 Multiply Multidigit by 1-Digit Numbers</p>		<p>Solve a multiplication problem involving a multidigit factor and a one-digit factor.          Demonstrate automatic recall of multiplication facts.</p>
<p>Unit 4 Whole Number Multiplication Lesson 3</p>	<p>3.OA.1 3.OA.3 3.NBT.3</p>	<p>Use expanded form to represent numbers through 10,000.          Find the fewest number of bills and coins to represent</p>

Multiply Equal Groups (A)	3.OA.5	<p>an amount of money.</p> <p>Order three or more whole numbers through 10,000.</p> <p>Use multiplication to solve a story problem that involves equal groups.</p> <p>Use objects or sketches to solve a multiplication story problem.</p> <p>Use grouping to solve simple multiplication problems.</p>
Unit Whole Number Multiplication Lesson 4 Multiply Equal Groups (B)	3.OA.1 3.OA.3 3.NBT.3	<p>Use multiplication to solve a story problem that involves equal groups.</p> <p>Demonstrate automatic recall of addition facts with sums through 20.</p> <p>Demonstrate automatic recall of subtraction facts with minuends through 20.</p> <p>Demonstrate automatic recall of multiplication facts.</p>
Unit 4 Whole Number Multiplication Lesson 5 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 4 Whole Number Multiplication Lesson 6 Multiplication with Equal Measures	3.OA.1 3.OA.3.	<p>Use multiplication to solve a story problem that involves equal measures.</p> <p>Solve a multiplication problem involving a multidigit factor and a one-digit factor.</p>
Unit 4 Whole Number Multiplication Lesson 7 Write Multiplication Stories (A)	3.OA.1	<p>Create a story problem that can be represented by a multiplication number sentence.</p> <p>Solve a multiplication problem involving a multidigit factor and a one-digit factor.</p> <p>Use multiplication to solve a story problem that involves equal groups.</p> <p>Determine a missing number in an equation or an inequality.</p> <p>Demonstrate automatic recall of multiplication facts.</p>
Unit 4 Whole Number Multiplication Lesson 8 Write Multiplication Stories (B)	3.OA.1	Create a story problem that can be represented by a multiplication number sentence.
Unit 4 Whole Number Multiplication Lesson 9 Core Focus		<p>Solve a multiplication problem involving a multidigit factor and a one-digit factor.</p> <p>Use multiplication to solve a story problem.</p> <p>Use objects or sketches to solve a multiplication story problem.</p> <p>Use models and math symbols to represent multiplication.</p>
Unit 4 Whole Number Multiplication Lesson 10 Unit Review		<p>Use multiplication to solve a story problem that involves equal groups.</p> <p>Create a story problem that can be represented by a multiplication number sentence.</p> <p>Use objects or sketches to solve a multiplication story problem.</p> <p>Solve multiplication problem involving a multidigit factor</p>

		<p>and one-digit factor. Use multiplication to solve a story problem that involves equal measures.</p>
Unit 4 Whole Number Multiplication Lesson 11 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 4 Whole Number Multiplication Lesson 12 Unit Checkpoint		
Unit 4 Whole Number Multiplication Lesson 13 Extended Problems: Reasoning		<p>Solve word problems involving equal groups using multiplication or division within 100. Solve word problems involving measurements and equal groups using multiplication or division within 100. Solve two-step word problems, limited to whole numbers. Determine the unknown whole number in a multiplication or division equation, within 100. Analyze complex problems using mathematical knowledge and skills. Multiply one-digit whole numbers by multiples of 10 in the range 10 to 90. Multiply within 100.</p>
Unit 5 Whole Number Division Sense Lesson 1 Model and Explain Division	3.OA.2	<p>Use objects or sketches to solve a division problem. Explain the meaning of the <math>\div</math> symbol. Use repeated subtraction to do division problems. Recognize that the <math>\div</math> sign refers to division. Correctly use the <math>\div</math> symbol. Use models and math symbols to represent division. Explain division as repeated subtraction. Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of multiplication facts. Demonstrate automatic recall of subtraction facts with minuends through 20. Recognize the meaning of the three symbols for division. Explain division as the sharing of a quantity into equal groups. Demonstrate understanding that division by zero is undefined. Use the inverse relationship of multiplication and division to compute and check results. Demonstrate an understanding of the effects of division on whole numbers. Explain and apply the division property of 1. Demonstrate an understanding of the inverse relationship between multiplication and division.</p>

Unit 5 Whole Number Division Sense Lesson 2 Applying Division Symbols and Rules		Recognize the meaning of the three symbols for division. Demonstrate understanding that division by zero is undefined. Explain and apply the division property of 1.
Unit 5 Whole Number Division Sense Lesson 3 Division as Sharing	3.OA.2	Explain division as the sharing of a quantity into equal groups. Explain and apply the zero property of multiplication. Use an area model to explain multiplication. Explain and apply the multiplication property of 1. Explain and apply the commutative property of multiplication.
Unit 5 Whole Number Division Sense Lesson 4 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 5 Whole Number Division Sense Lesson 5 Relating Multiplication and Division	3.OA.6. 3.OA.7.	Determine a missing number in an equation or an inequality. Demonstrate automatic recall of multiplication facts. Demonstrate an understanding of the inverse relationship between multiplication and division. Use objects or sketches to solve a division problem. Use objects or sketches to solve a multiplication problem. Use models or drawings to show how addition and subtraction are inversely related.
Unit 5 Whole Number Division Sense Lesson 6 Use Inverse Relationships	3.OA.6 3.OA.7 3.OA.4	Use the inverse relationship of multiplication and division to compute and check results. Demonstrate an understanding of the inverse relationship between multiplication and division.
Unit 5 Whole Number Division Sense Lesson 7 Effects of Division	3.OA.9	Demonstrate an understanding of the effects of division on whole numbers. Use multiplication to solve a story problem that involves equal measures. Solve addition or subtraction problems by using data from charts, picture graphs, and number sentences. Use the inverse relationship of multiplication and division to compute and check results.
Unit 5 Whole Number Division Sense Lesson 8 Solve Division Story Problems	3.OA.8	Use division to solve a story problem that involves equal measures. Use division to solve a story problem that involves equal groups. Demonstrate automatic recall of division facts.
Unit 5 Whole Number Division Sense Lesson 9 Write Division Story Problems		Demonstrate automatic recall of multiplication facts. Use the inverse relationship of multiplication and division to compute and check results. Create a story problem that can be represented by a division number sentence.

<p>Unit 5 Whole Number Division Sense Lesson 10 Core Focus</p>		<p>Solve a story problem involving two or more operations. Use the inverse relationship of multiplication and division to compute and check results. Use division to solve a story problem that involves equal groups.</p>
<p>Unit 5 Whole Number Division Sense Lesson 11 Unit Review</p>		<p>Explain division as repeated subtraction. Explain and apply the division property of 1. Use objects or sketches to solve a division problem. Explain the meaning of the <math>\div</math> symbol. Demonstrate an understanding of the effects of division on whole numbers. Use division to solve a story problem that involves equal measures. Solve a story problem involving two or more operations. Demonstrate understanding that division by zero is undefined. Recognize the meaning of the three symbols for division. Use division to solve a story problem that involves equal groups. Explain division as the sharing of a quantity into equal groups. Demonstrate an understanding of the inverse relationship between multiplication and division. Use the inverse relationship of multiplication and division to compute and check results. Create a story problem that can be represented by a division number sentence.</p>
<p>Unit 5 Whole Number Division Sense Lesson 12 (Optional) Your Choice</p>		<p>Identify and master skills and tasks from earlier in the course that have not yet been mastered.</p>
<p>Unit 5 Whole Number Division Sense Lesson 13 Unit Checkpoint</p>		
<p>Unit 5 Whole Number Division Sense Lesson 14 Extended Problems: Real-World Application</p>		<p>Apply mathematical knowledge and skills to evaluate and analyze real-world situations. Represent a data set with up to four categories on a bar graph (with single-unit scale). Explain the meaning of a division equation that includes dividends within 100. Represent a data set with up to four categories on a picture graph (with single-unit scale). Multiply within 100. Determine the unknown whole number in a multiplication or division equation, within 100. Divide within 100. Apply the distributive property of multiplication within 100.</p>

		<p>Solve word problems involving equal groups using multiplication or division within 100.</p> <p>Record length measurements on a line plot in which the horizontal scale is marked off in whole-number units.</p> <p>Explain division as an unknown-factor problem.</p> <p>Solve word problems involving arrays using multiplication or division within 100.</p>
<p>Unit 6 Algebra Thinking Lesson 1 Mathematical Expressions</p>		<p>Use a mathematical expression to represent a relationship between quantities.</p> <p>Recognize and describe a linear pattern, such as counting by 5s or multiplying 5 times a number to reach 100, by its rule.</p> <p>Select the appropriate symbol to show an operation or a relationship that makes a number sentence true.</p> <p>Use an equation to represent a relationship between quantities.</p> <p>Solve a simple story problem that involves a function.</p> <p>Determine a missing number in an equation or an inequality.</p> <p>Extend a linear pattern, such as stating what number comes next in a series.</p> <p>Use an inequality to represent a relationship between quantities.</p> <p>Demonstrate automatic recall of addition facts with sums through 20.</p> <p>Write and solve addition or subtraction number sentences to represent problem-solving situations with sums and minuends up through 1,000.</p>
<p>Unit 6 Algebra Thinking Lesson 2 Expressions and Number Sentences (A)</p>	3.OA.8	<p>Write and solve addition or subtraction number sentences to represent problem-solving situations with sums and minuends up through 1,000.</p> <p>Use an equation to represent a relationship between quantities.</p>
<p>Unit 6 Algebra Thinking Lesson 3 Expressions and Number Sentences (B)</p>	3.OA.8	<p>Use an equation to represent a relationship between quantities.</p> <p>Use equal sharing to do division problems.</p> <p>Demonstrate that a number can be composed of other numbers in various ways.</p> <p>Estimate the length of an object to the nearest inch or centimeter.</p>
<p>Unit 6 Algebra Thinking Lesson 4 Expression Comparison (A)</p>		<p>Use an inequality to represent a relationship between quantities.</p> <p>Demonstrate understanding that rectangles that have the same area can have different perimeters.</p> <p>Use an equation to represent a relationship between quantities.</p> <p>Compare whole numbers through 10,000.</p> <p>Demonstrate automatic recall of subtraction facts with minuends through 20.</p> <p>Demonstrate automatic recall of addition facts with</p>

		sums through 20.
Unit 6 Algebra Thinking Lesson 5 Expression Comparison (B)		Use an inequality to represent a relationship between quantities. Find the fewest number of bills and coins to represent an amount of money. Decompose numbers to solve subtraction problems, such as $213 - 12 = 200 + 13 - 12$ . Use counting by multiples of 10 to understand multiplication facts for 10. Use models to represent regrouping in addition or subtraction problems.
Unit 6 Algebra Thinking Lesson 6 Missing Symbols		Select the appropriate symbol to show an operation or a relationship that makes a number sentence true. Use an equation to represent a relationship between quantities. Write and solve addition or subtraction number sentences to represent problem-solving situations with sums and minuends up through 1,000. Use an inequality to represent a relationship between quantities.
Unit 6 Algebra Thinking Lesson 7 Missing Values (A)	3.OA.4 3.OA.8	Determine a missing number in an equation or an inequality. Use an equation to represent a relationship between quantities. Use an inequality to represent a relationship between quantities. Write and solve addition or subtraction number sentences to represent problem-solving situations with sums and minuends up through 1,000. Demonstrate automatic recall of subtraction facts with minuends through 20.
Unit 6 Algebra Thinking Lesson 8 Missing Values (B)	3.OA.4 3.OA.8	Determine a missing number in an equation or an inequality. Identify odd and even numbers and describe their characteristics. Identify the place value for each digit in whole numbers through 10,000.
Unit 6 Algebra Thinking Lesson 9 Missing Values (C)		Compare whole numbers through 10,000. Write number words through 10,000. Use expanded form to represent numbers through 10,000. Write numerals through 10,000. Determine a missing number in an equation or an inequality.

<p>Unit 6 Algebra Thinking Lesson 10 Number Patterns</p>	<p>3.OA.9</p>	<p>Recognize and describe a linear pattern, such as counting by 5s or multiplying 5 times a number to reach 100, by its rule.          Extend a linear pattern, such as stating what number comes next in a series.          Determine a next term and extend a linear pattern, such as 3, 6, 9, ... as the wheels on 1 tricycle, 2 tricycles, 3 tricycles, and extending it to 12 wheels on 4 tricycles as an example.          Describe linear patterns, such as 3, 6, 9, using the wheels on 1 tricycle, 2 tricycles, 3 tricycles as an example.          Demonstrate automatic recall of subtraction facts with minuends through 20.          Demonstrate automatic recall of addition facts with sums through 20.          Identify patterns in addition or multiplication facts.</p>
<p>Unit 6 Algebra Thinking Lesson 11 Story Problems and Patterns (A)</p>	<p>3.OA.9</p>	<p>Solve problems involving simple number patterns.          Recognize and describe a linear pattern, such as counting by 5s or multiplying 5 times a number to reach 100, by its rule.          Extend a linear pattern, such as stating what number comes next in a series.          Solve a simple story problem that involves a function.          Identify odd and even numbers and describe their characteristics.</p>
<p>Unit 6 Algebra Thinking Lesson 12 Story Problems and Patterns (B)</p>	<p>3.OA.9</p>	<p>Recognize and describe a linear pattern, such as counting by 5s or multiplying 5 times a number to reach 100, by its rule.          Solve problems involving simple number patterns.          Extend a linear pattern, such as stating what number comes next in a series.          Solve a simple story problem that involves a function.          Identify patterns from an addition or multiplication table.</p>
<p>Unit 6 Algebra Thinking Lesson 13 Core Focus</p>		<p>Write and solve addition or subtraction number sentences to represent problem-solving situations with sums and minuends up through 1,000.          Use an equation to represent a relationship between quantities.          Use an inequality to represent a relationship between quantities.          Use a variable to represent an unknown number in an equation.          Determine a missing number in an equation or an inequality.</p>

<p>Unit 6 Algebra Thinking Lesson 14 Unit Review</p>		<p>Determine a missing number in an equation or an inequality. Use a mathematical expression to represent a relationship between quantities. Use an inequality to represent a relationship between quantities. Use a variable to represent an unknown number in an equation. Recognize and describe a linear pattern, such as counting by 5s or multiplying 5 times a number to reach 100, by its rule. Solve a simple story problem that involves a function. Use an equation to represent a relationship between quantities. Select the appropriate symbol to show an operation or a relationship that makes a number sentence true. Extend a linear pattern, such as stating what number comes next in a series.</p>
<p>Unit 6 Algebra Thinking Lesson 15 (Optional) Your Choice</p>		<p>Identify and master skills and tasks from earlier in the course that have not yet been mastered.</p>
<p>Unit 6 Algebra Thinking Lesson 16 Unit Checkpoint</p>		
<p>Unit 6 Algebra Thinking Lesson 17 Extended Problems: Reasoning</p>		<p>Determine a missing number in an equation or an inequality. Use a mathematical expression to represent a relationship between quantities. Extend a linear pattern, such as stating what number comes next in a series. Solve multistep word problems using whole numbers. Analyze complex problems using mathematical knowledge and skills. Use an equation to represent a relationship between quantities. Recognize and describe a linear pattern, such as counting by 5s or multiplying 5 times a number to reach 100, by its rule. Solve a simple story problem that involves a function. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p>
<p>Unit 7 Geometry Lesson 1 Right Angles and Other Angles</p>		<p>Identify the measure of an angle in a geometric figure or an everyday object as greater than or less than a right angle. Identify right angles in geometric figures or everyday objects. Classify plane figures according to similarities and differences, such as triangle, square, rectangle, circle,</p>

		<p>oval.</p> <p>Solve a division problem that has a multidigit dividend, a one-digit divisor, and no remainder.</p> <p>Identify, describe, and classify a polygon according to the number of its sides.</p> <p>Identify attributes of isosceles, equilateral, and right triangles.</p> <p>Identify attributes of parallelograms, rectangles, and squares.</p> <p>Classify common solid geometric figures.</p> <p>Determine solid objects that could be combined to create a given solid object.</p> <p>Identify and describe common solid geometric figures.</p>
Unit 7 Geometry Lesson 2 Identify and Classify Polygons	3.G.1	<p>Round numbers through 10,000.</p> <p>Use an equation to represent a relationship between quantities.</p> <p>Classify plane figures according to similarities and differences, such as triangle, square, rectangle, circle, oval.</p> <p>Identify, describe, and classify a polygon according to the number of its sides.</p> <p>Identify and describe plane figures according to the number of sides and vertices, such as triangle, square, rectangle, circle, oval.</p>
Unit 7 Geometry Lesson 3 Triangles	3.G.1	<p>Identify and describe plane figures according to the number of sides and vertices, such as triangle, square, rectangle, circle, oval.</p> <p>Identify attributes of isosceles, equilateral, and right triangles.</p>
Unit 7 Geometry Lesson 4 Parallelograms	3.G.1 1	<p>Identify attributes of parallelograms, rectangles, and squares.</p> <p>Use the inverse relationship of multiplication and division to compute and check results.</p> <p>Demonstrate automatic recall of subtraction facts with minuends through 20.</p> <p>Demonstrate automatic recall of addition facts with sums through 20.</p> <p>Demonstrate automatic recall of multiplication facts.</p> <p>Identify and describe plane figures according to the number of sides and vertices, such as triangle, square, rectangle, circle, oval.</p>
Unit 7 Geometry Lesson 5 Core Focus	3.G.1	<p>Define and identify attributes of different quadrilaterals.</p> <p>Know how to define and sketch different quadrilaterals.</p> <p>Identify, describe, and classify a polygon according to the number of its sides.</p>

<p>Unit 7 Geometry Lesson 6 Unit Review</p>		<p>Identify attributes of isosceles, equilateral, and right triangles. Identify attributes of parallelograms, rectangles, and squares. Define and identify attributes of different quadrilaterals. Know how to define and sketch different quadrilaterals. Identify right angles in geometric figures or everyday objects. Identify the measure of an angle in a geometric figure or an everyday object as greater than or less than a right angle. Identify, describe, and classify a polygon according to the number of its sides.</p>
<p>Unit 7 Geometry Lesson 7 Unit Checkpoint</p>		
<p>Unit 7 Geometry Lesson 8 Extended Problems: Reasoning</p>		<p>Identify attributes of parallelograms, rectangles, and squares. Know how to define and sketch different quadrilaterals. Identify attributes of isosceles, equilateral, and right triangles. Draw quadrilaterals that are not rhombuses, rectangles, or squares. Identify and name shapes that share specific attributes. Identify right angles in geometric figures or everyday objects. Analyze complex problems using mathematical knowledge and skills. Identify, describe, and classify a polygon according to the number of its sides.</p>
<p>Unit 8 Semester Review and Checkpoint Lesson 1 Semester Review</p>		<p>Demonstrate an understanding of the inverse relationship between multiplication and division. Determine missing number in an equation or an inequality. Use multiplication to solve a story problem that involves equal groups. Demonstrate understanding that division by zero is undefined. Recognize the meaning of the three symbols for division. Identify the measure of an angle in a geometric figure or an everyday object as greater than or less than right angle. Identify and describe common solid geometric figures. Explain and apply the associative property of multiplication. Solve multiplication problem involving a multidigit factor and one-digit factor. Classify common solid geometric figures. Use an equation to represent a relationship between quantities. Select the appropriate symbol to show an operation or a relationship that makes a number sentence true.</p>

		<p>Use the inverse relationship of multiplication and division to compute and check results.</p> <p>Determine solid objects that could be combined to create a given solid object.</p> <p>Order three or more whole numbers through 10,000.</p> <p>Recognize and solve a story problem in which one quantity must be changed to equal another quantity.</p> <p>Identify attributes of parallelograms, rectangles, and squares.</p> <p>Round numbers through 10,000.</p> <p>Use an inequality to represent a relationship between quantities.</p> <p>Identify right angles in geometric figures or everyday objects.</p> <p>Identify attributes of isosceles, equilateral, and right triangles.</p> <p>Determine the sum or difference of two whole numbers.</p> <p>Use multiplication to solve a story problem that involves equal measures.</p> <p>Identify, describe, and classify polygon according to the number of its sides.</p>
Unit 8 Semester Review and Checkpoint Lesson 2 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 8 Semester Review and Checkpoint Lesson 3 Semester Checkpoint 1		
Unit 8 Semester Review and Checkpoint Lesson 4 Semester Checkpoint 2		
Unit 9 Whole Numbers and Multiple Operations Lesson 1 Use the Order of Operations	3.OA.8	Use the order of operations to evaluate an expression.
Unit 9 Whole Numbers and Multiple Operations Lesson 2 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 9 Whole Numbers and Multiple Operations Lesson Choose the Correct Operation (A)	3.OA.8	<p>Write and solve addition or subtraction number sentences to represent problem-solving situations with sums and minuends up through 1,000.</p> <p>Create a story problem that can be represented by a multiplication number sentence.</p> <p>Create a story problem that can be represented by a division</p>

		<p>number sentence.</p> <p>Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem.</p>
<p>Unit 9 Whole Numbers and Multiple Operations Lesson Choose the Correct Operation (B)</p>	3.OA.8	<p>Demonstrate an understanding of the inverse relationship between multiplication and division.</p> <p>Use the inverse relationship of multiplication and division to compute and check results.</p> <p>Use division to solve a story problem that involves equal measures.</p> <p>Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem.</p>
<p>Unit 9 Whole Numbers and Multiple Operations Lesson (Optional) Your Choice</p>		<p>Identify and master skills and tasks from earlier in the course that have not yet been mastered.</p>
<p>Unit 9 Whole Numbers and Multiple Operations Lesson Use More Than One Operation (A)</p>	3.OA.8	<p>Demonstrate automatic recall of addition facts with sums through 20.</p> <p>Demonstrate automatic recall of subtraction facts with minuends through 20.</p> <p>Demonstrate automatic recall of multiplication facts.</p> <p>Use the inverse relationship of multiplication and division to compute and check results.</p> <p>Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem.</p> <p>Solve story problem involving two or more operations.</p>
<p>Unit 9 Whole Numbers and Multiple Operations Lesson Use More Than One Operation (B)</p>	3.OA.8	<p>Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem.</p> <p>Solve story problem involving two or more operations.</p>
<p>Unit 9 Whole Numbers and Multiple Operations Lesson Core Focus</p>		
<p>Unit 9 Whole Numbers and Multiple Operations Lesson Unit Review</p>		
<p>Unit 9 Whole Numbers and Multiple Operations Lesson 1 (Optional) Your Choice</p>		<p>Identify and master skills and tasks from earlier in the course that have not yet been mastered.</p>
<p>Unit 9 Whole Numbers and</p>		

Multiple Operations Lesson 1 Unit Checkpoint		
Unit 9 Whole Numbers and Multiple Operations Lesson 1 Extended Problems: Reasoning		
Unit 10 Fractions and Probability Lesson 1 Represent and Name Fractions (A)	3.NF.1 b. 3.G.2	<p>Explain that fraction can be used to represent part of set, the relationship of a part to a whole, and a rational number on the number line.</p> <p>Write the fraction represented by a drawing that shows parts of a set or parts of a whole.</p> <p>Use a sketch to represent a fraction.</p> <p>Determine a missing number in an equation or an inequality.; Demonstrate automatic recall of multiplication facts.</p> <p>Demonstrate that a fraction can represent the relationship of equal parts to a whole or parts of a set.</p>
Unit 10 Fractions and Probability Lesson 2 Represent and Name Fractions (B)	3.NF.2 3.G.2	<p>Explain that fraction can be used to represent part of set, the relationship of a part to a whole, and a rational number on the number line.</p> <p>Write the fraction represented by a drawing that shows parts of a set or parts of a whole.</p> <p>Use a sketch to represent a fraction.</p> <p>Demonstrate how fractions and whole numbers can be plotted on a number line.</p>
Unit 10 Fractions and Probability Lesson 3 Fractions Lesson	3.NF.3	
Unit 10 Fractions and Probability Lesson 4 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 10 Fractions and Probability Lesson 5 Compare and Order Fractions (A)	3.NF.3.	<p>Identify right angles in geometric figures or everyday objects.</p> <p>Identify the measure of an angle in a geometric figure or an everyday object as greater than or less than a right angle.</p> <p>Identify, describe, and classify a polygon according to the number of its sides.</p> <p>Identify attributes of isosceles, equilateral, and right triangles.</p> <p>Use concrete objects or given drawings to compare unit fractions from <math>\frac{1}{12}</math> to <math>\frac{1}{2}</math>.</p> <p>Compare and order unit fractions, such as <math>\frac{1}{4}</math>, and fractions with like denominators, such as <math>\frac{2}{5}</math> and <math>\frac{4}{5}</math>, by using</p>

		objects or sketches.
Unit 10 Fractions and Probability Lesson 6 Compare and Order Fractions (B)	3.NF.3	Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of subtraction facts with minuends through 20. Demonstrate automatic recall of multiplication facts. Use the inverse relationship of multiplication and division to compute and check results. Compare and order unit fractions, such as $\frac{1}{4}$ , and fractions with like denominators, such as $\frac{2}{5}$ and $\frac{4}{5}$ , by using objects or sketches.
Unit 10 Fractions and Probability Lesson 7 Compare and Prove	3.NF.3	
Unit 10 Fractions and Probability Lesson 8 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 10 Fractions and Probability Lesson 9 Probability		Identify right angles in geometric figures or everyday objects. Identify the measure of an angle in a geometric figure or an everyday object as greater than or less than right angle. Identify, describe, and classify a polygon according to the number of its sides. Identify attributes of isosceles, equilateral, and right triangles. Use concrete objects or given drawings to compare unit fractions from $\frac{1}{12}$ to $\frac{1}{2}$ . Compare and order unit fractions, such as $\frac{1}{4}$ , and fractions with like denominators, such as $\frac{2}{5}$ and $\frac{4}{5}$ , by using objects or sketches.
Unit 10 Fractions and Probability Lesson 10 Identify, Record, and Display Outcomes		Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of subtraction facts with minuends through 20. Demonstrate automatic recall of multiplication facts. Use the inverse relationship of multiplication and division to compute and check results. Compare and order unit fractions, such as $\frac{1}{4}$ , and fractions with like denominators, such as $\frac{2}{5}$ and $\frac{4}{5}$ , by using objects or sketches.
Unit 10 Fractions and Probability Lesson 11 Drawing Scaled Graphs (A)	3.MD.3	

Unit 10 Fractions and Probability Lesson 12 Drawing Scaled Graphs (B)	3.MD.3	
Unit 10 Fractions and Probability Lesson 13 (Optional) Your Choice		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 10 Fractions and Probability Lesson 14 Interpreting Scaled Graphs		
Unit 10 Fractions and Probability Lesson 1 Use Data to Make Predictions		
Unit 10 Fractions and Probability Lesson 1 Core Focus		
Unit 10 Fractions and Probability Lesson 1 Unit Review		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 10 Fractions and Probability Lesson 18 (Optional) Your Choice		
Unit 1 Fractions and Probability Lesson 1 Unit Checkpoint		
Unit 10 Fractions and Probability Lesson 20 Extended Problems: Real-World Application		Solve division problem that has multidigit dividend, a one-digit divisor, and $n$ remainder. Measure the length of objects by repeating a standard unit. Identify the appropriate tools for measuring the length of an object. Identify the appropriate metric or English units for measuring the length of an object.
Unit 11 Measurement: Length and Time Lesson 1 Tools and Units for Measuring Length		Identify centimeters on a ruler and measure the length of an object to the nearest centimeter. Estimate and measure the length of an object to the nearest centimeter.
Unit 11 Measurement: Length and Time Lesson 2		Identify inches on a ruler and measure the length of an object to the nearest inch. Estimate the length of an object to the nearest inch or

Estimate and Measure Centimeters		centimeter. Estimate the length of an object to the nearest $\frac{1}{2}$ inch and measure the length to the nearest $\frac{1}{4}$ inch.
Unit 11 Measurement: Length and Time Lesson 3 Estimate and Measure Inches (A)		Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of subtraction facts with minuends through 20. Demonstrate automatic recall of multiplication facts. Use the inverse relationship of multiplication and division to compute and check results. Identify inches on a ruler and measure the length of an object to the nearest inch. Estimate the length of an object to the nearest inch or centimeter. Estimate the length of an object to the nearest $\frac{1}{2}$ inch and measure the length to the nearest $\frac{1}{4}$ inch.
Unit 11 Measurement: Length and Time Lesson 4 Estimate and Measure Inches (B)		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 11 Measurement: Length and Time Lesson 5 (Optional) Your Choice	3.MD.4	
Unit 11 Measurement: Length and Time Lesson 6 Displaying Measurement Data in Line Plots	3.MD.1	Write the fraction represented by a drawing that shows parts of a set or parts of a whole. Use a sketch to represent a fraction. Compare and order unit fractions, such as $\frac{1}{4}$ , and fractions with like denominators, such as $\frac{2}{5}$ and $\frac{4}{5}$ , by using objects or sketches. Use objects or sketches to solve a simple story problem involving addition or subtraction of fractions. Tell time to the nearest quarter hour. Tell time to the nearest minute.
Unit 11 Measurement: Length and Time Lesson 7 Tell Time in Minutes	3.MD.1	Demonstrate automatic recall of subtraction facts with minuends through 20. Determine a missing number in an equation or an inequality. Demonstrate automatic recall of multiplication facts. Determine elapsed time in hours, such as 11:00 a.m. to 4:00 p.m. Determine elapsed time to the nearest minute.
Unit 11 Measurement: Length and Time Lesson 8 Determine Elapsed Time in Minutes	3.MD.1	

Unit 11 Measurement: Length and Time Lesson 9 Measuring and Displaying Time Intervals		
Unit 11 Measurement: Length and Time Lesson 10 Core Focus		
Unit 11 Measurement: Length and Time Lesson 11 Unit Review		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 11 Measurement: Length and Time Lesson 12 (Optional) Your Choice		
Unit 11 Measurement: Length and Time Lesson 13 Unit Checkpoint		
Unit 11 Measurement: Length and Time Lesson 14 Extended Problems: Reasoning	3.MD.2	Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of subtraction facts with minuends through 20. Demonstrate automatic recall of multiplication facts. Use the inverse relationship of multiplication and division to compute and check results. Identify the appropriate tools for measuring liquid volume. Identify the appropriate metric and English units for measuring liquid volume.
Unit 12 Measurement: Capacity and Weight Lesson 1 Capacity	3.MD.2	Order three or more whole numbers through 500 by using the symbols $<$ , $=$ , $>$ . Use division to solve a story problem that involves equal groups. Identify attributes of parallelograms, rectangles, and squares. Solve story problem involving addition or subtraction of money amounts in decimal notation. Identify the appropriate metric and English units for measuring liquid volume. Estimate and measure liquid volume to the nearest liter.
Unit 12 Measurement: Capacity and Weight Lesson 2 Measure to the Nearest Liter		Use the inverse relationship of multiplication and division to compute and check results. Solve division problem that has multidigit dividend, a one-digit divisor, and $n$ remainder. Identify the measure of an angle in a geometric figure or an

		<p>everyday object as greater than or less than right angle. Identify attributes of isosceles, equilateral, and right triangles.</p> <p>Identify the appropriate metric and English units for measuring liquid volume.</p> <p>Estimate and measure liquid volume to the nearest cup.</p>
Unit 12 Measurement: Capacity and Weight Lesson 3 English Units of Capacity		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 12 Measurement: Capacity and Weight Lesson 4 (Optional) Your Choice		<p>Determine a missing number in an equation or an inequality. Demonstrate automatic recall of multiplication facts. Compare objects by weight (heavier and lighter). Use a nonstandard unit to describe the weight of an object and compare the weights of two or more objects (for example, the pencil is as heavy as 1 paper clips, and the marker is as heavy as 19 paper clips).</p> <p>Identify the appropriate tools for measuring the weight of an object.</p> <p>Identify the appropriate metric and English units for measuring the weight of an object.</p>
Unit 12 Measurement: Capacity and Weight Lesson 5 Measure in English and Metric Units	3.MD.2	<p>Solve story problem involving two or more operations. Identify right angles in geometric figures or everyday objects.</p> <p>Use the results of a probability experiment to predict future events.</p> <p>Identify the appropriate metric or English units for measuring the length of an object.</p> <p>Identify the appropriate metric and English units for measuring the weight of an object.</p>
Unit 12 Measurement: Capacity and Weight Lesson 6 Measure in Grams		<p>Determine the sum or difference of two whole numbers. Identify the appropriate tools for measuring the length of an object.</p> <p>Estimate and measure the length of an object to the nearest centimeter.</p> <p>Estimate the length of an object to the nearest <math>\frac{1}{2}</math> inch and measure the length to the nearest <math>\frac{1}{4}</math> inch.</p> <p>Identify the appropriate tools for measuring the weight of an object.</p> <p>Estimate and measure the weight of an object to the nearest ounce.</p>
Unit 12 Measurement: Capacity and Weight Lesson 7 Measure Weight in Ounces and Pounds		<p>Demonstrate automatic recall of addition facts with sums through 20.</p> <p>Demonstrate automatic recall of subtraction facts with minuends through 20.</p> <p>Demonstrate automatic recall of multiplication facts.</p>

		<p>Use the inverse relationship of multiplication and division to compute and check results.</p> <p>Identify relationships between units of time, such as minutes in an hour, days in a month, weeks in a year.</p> <p>Use a mathematical expression to represent a relationship between quantities.</p> <p>Write a simple unit conversion, such as inches to feet, as an expression or an equation.</p>
Unit 12 Measurement: Capacity and Weight Lesson 8 Unit Conversions		<p>82 Write simple unit conversion, such as inches to feet, as an expression or an equation.</p> <p>719;826 Solve unit-conversion story problem by using multiplication or division.; Use a simple unit conversion, such as centimeters to meters, to solve a problem.</p>
Unit 12 Measurement: Capacity and Weight Lesson 9 Measurement Conversions (A)		<p>Generate fraction representations (for example, show <math>\frac{2}{3}</math> of shape or <math>\frac{2}{3}</math> of set of objects or <math>\frac{2}{3}</math> of an interval on a number line).</p> <p>Select the appropriate symbol to show an operation or a relationship that makes a number sentence true.</p> <p>Select the appropriate symbol to show an operation or a relationship that makes number sentence true.;Use an area model to explain multiplication.</p> <p>Explain that fraction can be used to represent part of set, the relationship of a part to a whole, and a rational number on the number line.</p> <p>Write a simple unit conversion, such as inches to feet, as an expression or an equation.</p> <p>Solve unit-conversion story problem by using multiplication or division.</p> <p>Use a simple unit conversion, such as centimeters to meters, to solve a problem.</p>
Unit 12 Measurement: Capacity and Weight Lesson 10 Measurement Conversions (B)	3.MD.2	
Unit 12 Measurement: Capacity and Weight Lesson 11 Core Focus		
Unit 12 Measurement: Capacity and Weight Lesson 12 Unit Review		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 12 Measurement: Capacity and Weight Lesson 13 (Optional) Your		

Choice		
Unit 12 Measurement: Capacity and Weight Lesson 14 Unit Checkpoint		
Unit 12 Measurement: Capacity and Weight Lesson 15 Extended Problems: Real-World Application	3.OA.8	Solve division problem that has multidigit dividend, a one-digit divisor, and $n$ remainder. Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem. Analyze a story problem by identifying the question, recognizing relevant information, and developing a solution strategy.
Unit 13 Mathematical Reasoning Lesson 1 Analyze Story Problems (A)	3.OA.8	Analyze a story problem by identifying the question, recognizing relevant information, and developing a solution strategy.
Unit 13 Mathematical Reasoning Lesson 2 Analyze Story Problems (B)	3.OA.8	Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem. Analyze a story problem by identifying the question, recognizing relevant information, and developing a solution strategy.
Unit 13 Mathematical Reasoning Lesson 3 Analyze Story Problems (C)	3.OA.8	Demonstrate automatic recall of addition facts with sums through 20. Demonstrate automatic recall of subtraction facts with minuends through 20. Demonstrate automatic recall of multiplication facts. Use the inverse relationship of multiplication and division to compute and check results. Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem. Demonstrate when and how to break a multistep story problem into simpler steps.
Unit 13 Mathematical Reasoning Lesson 4 Understand Multistep Problems		Demonstrate an understanding of connections between similar addition or subtraction problem-solving situations, involving sums and minuends up through 1,000. Analyze a story problem by identifying the question, recognizing relevant information, and developing a solution strategy. Demonstrate when and how to break a multistep story problem into simpler steps. Apply strategies and results from a simpler story problem to either a more complex problem or to a similar problem.

Unit 13 Mathematical Reasoning Lesson 5 Strategies to Solve Complex Problems		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 13 Mathematical Reasoning Lesson 6 (Optional) Your Choice	3.OA.8	Demonstrate automatic recall of subtraction facts with minuends through 20. Determine a missing number in an equation or an inequality. Demonstrate automatic recall of multiplication facts. Explain mathematical reasoning in a story problem by using words, numbers, symbols, charts, graphs, tables, diagrams, or models.
Unit 13 Mathematical Reasoning Lesson 7 Story Problem Reasoning (A)		Apply strategies and results from a simpler story problem to either more complex problem or to a similar problem. Explain mathematical reasoning in story problem by using words, numbers, symbols, charts, graphs, tables, diagrams, or models.
Unit 13 Mathematical Reasoning Lesson 8 Story Problem Reasoning (B)	3.OA.8	Determine missing number in an equation or an inequality. Solve multiplication problem involving multidigit factor and one-digit factor. Solve division problem that has multidigit dividend, a one-digit divisor, and $n$ remainder. Determine whether addition, subtraction, multiplication, or division is the appropriate operation to use to solve a story problem and solve the problem. Round numbers through 10,000. Use estimation to predict a solution to a story problem and to determine whether calculations are reasonable. Explain mathematical reasoning in story problem by using words, numbers, symbols, charts, graphs, tables, diagrams, or models. Determine the answer to a story problem to a specific degree of accuracy, such as hundredths. Explain the advantages of exact answers and approximate answers to story problems.
Unit 13 Mathematical Reasoning Lesson 9 Exact and Approximate Solutions		
Unit 13 Mathematical Reasoning Lesson 10 Core Focus		
Unit 13 Mathematical Reasoning Lesson 11 Unit Review		Identify and master skills and tasks from earlier in the course that have not yet been mastered.

Unit 13 Mathematical Reasoning Lesson 12 (Optional) Your Choice		
Unit 13 Mathematical Reasoning Lesson 13 Unit Checkpoint		
Unit 13 Mathematical Reasoning Lesson 14 Extended Problems: Reasoning		Determine a missing number in an equation or an inequality. Demonstrate automatic recall of multiplication facts. Identify, describe, and classify a polygon according to the number of its sides. Determine the perimeter of a polygon with whole-number side lengths.
Unit 14 Perimeter and Area Lesson 1 Find the Perimeter of Objects	3.MD.8	
Unit 14 Perimeter and Area Lesson 2 Finding the Missing Side Length	3.MD.8	
Unit 14 Perimeter and Area Lesson 3 Practical Perimeter Problems with Missing Lengths		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 14 Perimeter and Area Lesson 4 (Optional) Your Choice	3.MD.5 3.MD.6	Use an area model to explain multiplication. Use multiplication or division to solve a story problem involving rectangular area.
Unit 14 Perimeter and Area Lesson 5 Rectangular Area	3.MD.5 3.MD.6	Use an area model to explain multiplication. Use multiplication or division to solve a story problem involving rectangular area.
Unit 14 Perimeter and Area Lesson 6 Combine and Take Apart Areas		
Unit 14 Perimeter and Area Lesson 7 Core Focus		
Unit 14 Perimeter and Area Lesson 8 Unit Review		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 14 Perimeter and Area Lesson 9 (Optional) Your		

Choice		
Unit 14 Perimeter and Area Lesson 10 Unit Checkpoint		
Unit 14 Perimeter and Area Lesson 11 Extended Problems: Real-World Application		
Unit 15 Semester Review and Assessment Lesson 1 Semester Review		Identify and master skills and tasks from earlier in the course that have not yet been mastered.
Unit 15 Semester Review and Assessment Lesson 2 (Optional) Your Choice		
Unit 15 Semester Review and Assessment Lesson 3 Semester Checkpoint 1		
Unit 15 Semester Review and Assessment Lesson 4 Semester Checkpoint 2		