



<u>Course Title:</u> Third Grade Math		
<u>Description:</u> Third grade content focuses on procedures, concepts, and applications in four critical areas: <ul style="list-style-type: none"> • Understanding of multiplication and division and strategies for multiplying and dividing numbers within 100. • Understanding of fractions, specifically unit fractions. • Understand the structure of rectangular arrays and area. • Describing and analyzing two-dimensional shapes. 		
<i>Number and Quantity</i>		
<u>Reporting Topic</u>	<u>Grade Level Standards</u>	<u>Competency Statement</u>
<u>Place Value</u>	<ul style="list-style-type: none"> • Use place value understanding to round whole numbers to the nearest 10 or 100. (3.NBT.A.1) 	Students will: <ul style="list-style-type: none"> • Round whole numbers to the nearest 10 or 100.
<u>Foundations of Fractions</u>	<ul style="list-style-type: none"> • Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$. (3.NF.A.1) • Understand a fraction as a number on the number line; represent fractions on a number line diagram. (3.NF.A.2) 	Students will: <ul style="list-style-type: none"> • Write fractions to represent one of more equal parts, as a part of a whole, part of a set, or point on a number line.
<u>Comparing Fractions</u>	<ul style="list-style-type: none"> • Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. (3.NF.A.3) 	Students will: <ul style="list-style-type: none"> • Explain equivalence of fractions and compare fractions by reasoning about their size.
<i>Operations and Algebra</i>		
<u>Reporting Topic</u>	<u>Grade Level Standards</u>	<u>Competency Statement</u>



<p><u>Addition and Subtraction</u></p>	<ul style="list-style-type: none">Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. (3.NBT.A.2)	<p>Students will:</p> <ul style="list-style-type: none">Fluently add and subtract within 1000 using strategies and algorithms
<p><u>Multiplication and Division</u></p>	<ul style="list-style-type: none">Multiply one digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9×80, 5×60) using strategies based on place value and properties of operations (3.NBT.A.3)Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as 5×7.</i> (3.OA.A.1)Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.</i> (3.OA.A.2)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.A.3)Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = _ \div 3$, $6 \times 6 = ?$</i> (3.OA.A.4)Understand division as an unknown-factor problem. <i>For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</i> (3.OA.B.6)Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. (3.OA.C.7)	<p>Students will:</p> <ul style="list-style-type: none">Use multiplication and division within 100 to solve word problems, as well as, determine the unknown whole number in a multiplication or division problem.
	<ul style="list-style-type: none">Apply properties of operations as strategies to multiply and divide. <i>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 $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$.</i>	<p>Students will:</p> <ul style="list-style-type: none">Identify arithmetic patterns and explain them using properties of operations.



<p><u>Properties of Operations</u></p>	<p>(Distributive property.) (3.OA.B.5)</p> <ul style="list-style-type: none"> Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>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.</i> (3.OA.D.9) 	
<p><u>Expressions and Equations</u></p>	<ul style="list-style-type: none"> 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. (3.OA.D.8) 	<p>Students will:</p> <ul style="list-style-type: none"> Solve two step word problems using the four operations. Use a letter to stand for an unknown quantity.
<p>Geometry</p>		
<p><u>Reporting Topic</u></p>	<p><u>Grade Level Standards</u></p>	<p><u>Competency Statement</u></p>
<p><u>Geometric Shapes</u></p>	<ul style="list-style-type: none"> 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.A.1) 	<p>Students will:</p> <ul style="list-style-type: none"> Name shape categories and attributes and identify examples.
<p><u>Compose and Decompose Shapes</u></p>	<ul style="list-style-type: none"> Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.</i> (3.G.A.2) 	<p>Students will:</p> <ul style="list-style-type: none"> Partition shapes into parts with equal areas and express each part of the area as a unit fraction
<p><u>Area</u></p>	<ul style="list-style-type: none"> Recognize area as an attribute of plane figures and understand concepts of area measurement. (3.MD.C.5) Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). (3.MD.C.6) Relate area to the operations of multiplication and addition. (3.MD.C.7) 	<p>Students will:</p> <ul style="list-style-type: none"> Find area of squares and rectangles using addition and multiplication



<p><u>Perimeter</u></p>	<ul style="list-style-type: none"> 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 areas or with the same area and different perimeters. (3.MD.D.8) 	<p>Students will:</p> <ul style="list-style-type: none"> Solve problems involving perimeter of polygons in many different ways.
<p><i>Measurement, Data, Statistics, and Probability</i></p>		
<p><u>Reporting Topics</u></p>	<p><u>Grade Level Standards</u></p>	<p><u>Competency Statement</u></p>
<p><u>Measurement</u></p>	<ul style="list-style-type: none"> Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). 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. (3.MD.A.2) 	<p>Students will:</p> <ul style="list-style-type: none"> Measure and estimate liquid volumes and masses of objects and solve word problems involving mass and volume
<p><u>Represent and Interpret Data</u></p>	<ul style="list-style-type: none"> 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. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i> (3.MD.B.3) 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.B.4) 	<p>Students will:</p> <ul style="list-style-type: none"> Measure lengths to the nearest $\frac{1}{4}$ " and solve problems using line plots and bar graphs.
<p><u>Time</u></p>	<ul style="list-style-type: none"> 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.A.1) 	<p>Students will:</p> <ul style="list-style-type: none"> Tell and write time to the nearest minute and solve word problems involving time.