

3rd Grade Math Scope and Sequence

Revised August 2018

1 st Nine Weeks				
Time	Cluster	Standards	Learning Targets	Lesson Topics/Resources
1st 9 Weeks	3.NBT.A- Use place value understanding and properties of operations to perform multi-digit arithmetic.	3.NBT.A.1 Round whole numbers to the nearest 10 or 100 using understanding of place value.	I can use place value to round whole numbers to the nearest 10 and 100.	My Math Chapter 1 pg. 29-40
1st 9 Weeks	3.NBT.A- Use place value understanding and properties of operations to perform multi-digit arithmetic.	3.NBT.A.2 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.	I can fluently add and subtract within 1000 using an algorithm and strategy based on place value. I can use strategies (such as applying the commutative or associative property, adding on, using an open number line, drawing models, compensation, etc.) for adding and subtracting within 1,000 with ease.	My Math Chapter 2 and 3
1st 9 Weeks	3.G.A- Reason with shapes and their attributes.	3.G.A.1 Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category. Recognize rhombuses, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories.	I can identify and define two-dimensional shapes based on their attributes. I can identify rhombuses, rectangles, and squares as quadrilaterals. I can describe, analyze, and compare properties of two-dimensional shapes.	My Math Chapter 14 Lessons 1, 2, 3, 4, 5

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			I can compare and classify shapes by attributes, sides, and angles. I can group shapes with shared attributes.	
1st 9 Weeks	3.G.A- Reason with shapes and their attributes.	3.G.A.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 as $\frac{1}{4}$ of the area of the shape.	I can partition (divide) shapes into equal parts with equal areas. I can explain any unit fraction ($\frac{1}{b}$) as one part of a whole divided into b equal parts (e.g., $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). (Relate to $\frac{1}{8}$ on a ruler.)	My Math Chapter 14 Lesson 7
1st 9 Weeks	3.G.A- Reason with shapes and their attributes.	3.G.A.3 Determine if a figure is a polygon.	I can define and recognize attributes of polygons.	My Math Chapter 14 Lesson 2
1st 9 Weeks	3.OA.A- Represent and solve problems involving multiplication and division	3.OA.A.1 Interpret the factors and products in whole number multiplication equations (e.g., 4×7 is 4 groups of 7 objects with a total of 28 objects or 4 strings measuring 7 inches each with a total of 28 inches.)	I can illustrate products of whole numbers in relations to factors (e.g., $35 = 5 \times 7$ can be interpreted as 5 groups of 7, an array with 5 rows and 7 columns, the area of a 5-by-7 rectangle, 5 rows of 7 objects). I can multiply to find the product of two single digit whole numbers. I can recognize multiplication as repeated addition. I can use skip counting as a strategy to find a product of two factors.	Ongoing skill taught throughout the year

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<p>1st 9 Weeks</p>	<p>3.0A.A- Represent and solve problems involving multiplication and division</p>	<p>3.0A.A.2 Interpret the dividend, divisor, and quotient in whole number division equations (e.g., $28 \div 7$ can be interpreted as 28 objects divided into 7 equal groups with 4 objects in each group or 28 objects divided so there are 7 objects in each of the 4 equal groups.)</p>	<p>I can explain division as a set of objects partitioned into an equal number of shares or groups.</p> <p>I can describe a context in which a number of shares or a number of groups can be expressed by dividing or as division.</p> <p>I can identify parts of division equations (dividend, divisor, and quotient).</p> <p>I can illustrate quotients in relation to divisors and dividends (e.g. $56 \div 8 = 7$ can be interpreted as 56 objects divided into 8 equal groups or 56 objects divided so there are 8 in each group) as in bar modeling.</p> <p>I can describe the inverse relationship between multiplication and division.</p>	<p>My Math Chapters 4, 5, 6, 7, 8</p>
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2 nd Nine Weeks				
Time	Cluster	Standards	Learning Targets	Lesson Topics/Resources
2 nd 9 Weeks	3.0A.A- Represent and solve problems involving multiplication and division	3.0A.A.3 Multiply and divide within 100 to solve contextual problems, with unknowns in all positions, in situations involving equal groups, arrays, and measurement quantities using strategies based on place value, the properties of operations, and the relationship between multiplication and division (e.g., contexts including computations such as $3 \times ? = 24$, $6 \times 16 = ?$, $? \div 8 = 3$, or $96 \div 6 = ?$) (See Table 2 – Multiplication and Division situations).	<p>I can represent multiplication and division word problems using drawings, concrete models, and equations with unknowns in all positions.</p> <p>I can determine when to multiply and divide in word problems.</p> <p>I can solve word problems involving equal groups, arrays, using drawings and equations...with a symbol for the unknown number to represent the problem.</p>	My Math Chapters 4, 5, 6, 7, 8
2 nd 9 Weeks	3.0A.A- Represent and solve problems involving multiplication and division	3.0A.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers within 100. For example, determine the unknown number that makes the equation true in each of the equations: $8 \times ? = 48$, $5 = ? \div 3$, $6 \times 6 = ?$	<p>I can solve problems by finding the missing factor, product, divisor, dividend, or quotient.</p> <p>I can generate the unknown number, no matter its position, in multiplication and division problems.</p>	My Math Chapters 4, 5, 6, 7, 8
2 nd 9 Weeks	3.0A.B- Understand properties of multiplication and the relationship between	3.0A.B.5 Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.) 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 solved by $(3 \times$	<p>I can distinguish between the properties of multiplication.</p> <p>I can apply the properties of multiplication to solve problems more efficiently.</p>	My Math Chapter 4

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	<p>multiplication and division. (see Table 3 – Properties of Operations)</p>	<p>$5) \times 2$ or $3 \times (5 \times 2)$ (Associative property of multiplication). One way to find 8×7 is by using $8 \times (5 + 2) = (8 \times 5) + (8 \times 2)$. By knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, then $8 \times 7 = 40 + 16 = 56$ (Distributive property of multiplication over addition).</p>	<p>I can justify my thinking using algebraic properties as proof.</p> <p>I can explain the commutative, associative, and distributive property of multiplication.</p> <p>I can apply the commutative, associative, and distributive properties to decompose, regroup, and/or reorder factors to make it easier to multiply two or more factors.</p>	
2 nd 9 Weeks	<p>3.0A.B- Understand properties of multiplication and the relationship between multiplication and division. (see Table 3 – Properties of Operations)</p>	<p>3.0A.B.6 Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</p>	<p>I can change a division problem into a multiplication problem with an unknown factor.</p> <p>I can use multiplication to solve division problems.</p> <p>I can recognize and explain the relationship between multiplication and division.</p>	My Math Chapter 5
2 nd 9 Weeks	<p>3.0A.C- Multiply and divide within 100.</p>	<p>3.0A.C.7 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 3rd grade, know from memory all products of two one-digit numbers and related division facts.</p>	<p>I can use concrete models, drawings, and equations to solve multiplication and division problems.</p> <p>I can multiply any two numbers with a product within 100 with ease by choosing strategies that will get to the answer quickly.</p>	My Math Chapter 7

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			<p>I can divide whole numbers with a dividend within 100 by a single-digit divisor without remainders.</p> <p>I can fluently and accurately express multiplication facts through 10 x 10 and relate them to division.</p>	
2 nd 9 Weeks	<p>3.0A.D- Solve problems involving the four operations, and identify and explain patterns in arithmetic.</p>	<p>3.0A.D.8 Solve two-step contextual 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 (See Table 1 - Addition and Subtraction Situations and Table 2 Multiplication and Division Situations).</p>	<p>I can choose the correct operation to perform the first computation, and choose the correct operation to perform the second computation in order to solve two-step word problems.</p> <p>I can construct an equation using a letter or symbol for the unknown quantity.</p> <p>I can decide if my answers are reasonable using mental math and estimation strategies including rounding.</p> <p>(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, i.e., Order of Operations.)</p>	<p>Located at end of each chapter in My Math book (green pages)</p>

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2 nd 9 Weeks	3.OA.D- Solve problems involving the four operations, and identify and explain patterns in arithmetic.	3.OA.D.9 Identify arithmetic patterns (including patterns in the addition and multiplication tables) and explain them using properties of operations. For example, analyze patterns in the multiplication table and observe that 4 times a number is always even (because $4 \times 6 = (2 \times 2) \times 6 = 2 \times (2 \times 6)$, which uses the associative property of multiplication) (See Table 3 - Properties of Operations).	I can recognize and describe arithmetic patterns in number charts, charts, addition tables, and multiplication tables.	My Math Chapter 2 pg. 67-86 (addition patterns) My Math Chapter 6
2 nd 9 Weeks	3.NBT.A- Use place value understanding and properties of operations to perform multi-digit arithmetic .	3.NBT.A.3 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.	I can multiply one-digit numbers by 10. I can use place value strategies to multiply one-digit numbers by multiples of 10.	My Math Chapter 4
2 nd 9 Weeks	3.MD.C Geometric measurement: understand concepts of area and relate area to multiplication and to addition	3.MD.C.5 Recognize that plane figures have an area and understand concepts of area measurement. a. Understand that 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. Understand that 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.	I can define a unit square. I can describe area as the measure of space within a plane figure and explain why area is measured in square units. I can explain that multiplying a length by a width (which are single dimensions) results in an area measure (2 dimensions).	My Math Chapter 13 Lessons 3, 4, 6, 9
2 nd 9 Weeks	3.MD.C Geometric measurement: understand concepts of	3.MD.C.6 Measure areas by counting unit squares (square centimeters, square meters, square inches, square feet, and improvised units)	I can determine the measure of the area of a plane figure by covering it with square units - with no gaps or overlaps- and counting the	My Math Chapter 13 Lessons 5

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	area and relate area to multiplication and to addition		number of unit squares used. I can represent the area of a plane figure as “n” square units (not units squared).	
2 nd 9 Weeks	3.MD.C Geometric measurement: understand concepts of area and relate area to multiplication and to addition	3.MD.C.7 Relate area of rectangles to the operations of multiplication and addition. a. Find the area of a rectangle with whole-number side lengths by tiling it and show that the area is the same as would be found by multiplying the side lengths. b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real-world and mathematical problems and represent whole-number products as rectangular areas in mathematical reasoning. c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. For example, in a rectangle with dimensions 4 by 6, students can decompose the rectangle into 4×3 and 4×3 to find the total area of 4×6 . (See Table 3 - Properties of Operations) d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.	I can use tiles to find the area of rectangles. I can explain the relationship between tiling and multiplying side lengths to find the area of rectangles. I can multiply adjacent side lengths of rectangles to solve word problems. I can use area models to explain the distributive property. I can decompose an irregular figure into non-overlapping rectangles. I can explain area as additive and use this understanding to solve word problems.	My Math Chapter 13 Lesson 7
2 nd 9 Weeks	3.MD.D- Geometric measure: recognize perimeter as an attribute of plane	3.MD.D.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	I can calculate the perimeter of shapes made from polygons. I can calculate the perimeter of a polygon with a missing	My Math Chapter 13 Lessons 1, 2 Pull additional resources

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	figures and distinguish between linear and area	and different areas or with the same area and different perimeters.	side. I can construct shapes with different areas given the same perimeter. I can construct shapes with different perimeters given the same area.	
2 nd 9 Weeks	3.MD. B – Represent and interpret data	3.MD.B.3 Draw a scaled pictograph 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 graphs.	I can read and interpret scaled bar graphs in order to solve one- and two-step "how many more" and "how many less" problems. I can choose a proper scale for a bar graph or picture graph. I can create a scaled picture graph or bar graph with several categories to represent data (e.g., one square in a bar graph or one picture might represent 5 objects).	My Math Chapter 12
2 nd 9 Weeks	3.MD. B – Represent and interpret data	3.MD.B.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.	I can use a ruler to measure lengths in whole, half, and quarter (fourth) inches. I can generate and record measurement data using whole, half, and quarter (fourth) inches. I can create a line plot with a horizontal scale marked off	My Math Chapter 12 Lesson 6 Pull additional resources

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			in whole, half, or quarter (fourth) units.	
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3 rd Nine Weeks				
Time	Cluster	Standards	Learning Targets	Lesson Topics/Resources
3 rd 9 Weeks	3.NF.A Develop understanding of fractions as numbers.	3.NF.A.1 Understand a fraction, $1/b$, as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction a/b as the quantity formed by a parts of size $1/b$. For example, $3/4$ represents a quantity formed by 3 parts of size $1/4$.	I can explain any unit fraction ($1/b$) as 1 part of a whole. I can explain any fraction a/b as "a" (numerator) representing the number of parts and "b" (denominator) representing the total number of equal parts in the whole; for example, $3/4$ represents a quantity formed by 3 parts of size $1/4$. * Limit denominators of fractions in this cluster to 2, 3, 4, 6, and 8.	My Math Chapter 10
3 rd 9 Weeks	3.NF.A Develop understanding of fractions as numbers.	3.NF.A.2 Understand a fraction as a number on the number line. Represent fractions on a number line. a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint locates the number $1/b$ on the number line. For example, on a number line from 0 to 1, students can partition it into 4 equal parts and recognize that each part represents a length of $1/4$ and the first part has an endpoint at $1/4$ on the number line. b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line. For example, $5/3$ is the distance from 0 when there are 5 iterations of $1/3$.	I can explain and show how $1/b$ can be represented on a number line as a number that is located a distance of $1/b$ to the right of 0. I can explain and show how $1/b$ can be represented on a number line as the size of each part when a whole is partitioned into b equal groups. I can represent a unit fraction $1/b$ on a number line between 0 and 1 by creating a number line with the appropriate number of tick marks and spaces between 0 and 1.	My Math Chapter 10

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			I can represent any fraction $\square \square$ on a number line.	
3 rd 9 Weeks	3.NF.A Develop understanding of fractions as numbers.	3.NF.A.3 Explain equivalence of fractions and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line. b. Recognize and generate simple equivalent fractions (e.g., $1/2 = 2/4$, $4/6 = 2/3$) and explain why the fractions are equivalent using a visual fraction model. c. Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. For example, express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point on a number line diagram. d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Use the symbols $>$, $=$, or $<$ to show the relationship and justify the conclusions.	<p>I can use models to show and explain equivalent fractions with denominators of 2, 3, 4, 6, and 8.</p> <p>I can locate equivalent fractions on a number line.</p> <p>I can determine that two fractions are equivalent when they are the same size or at the same point on a number line.</p> <p>I can use different visual fraction models to compare fractions.</p> <p>I can create equivalent fractions and represent them with pictures and models.</p> <p>I can use models to show and explain whole numbers as fractions.</p> <p>I can locate whole numbers as fractions on a number line.</p>	My Math Chapter 10
3 rd 9 Weeks	3.G.A- Reason with shapes and their attributes.	3.G.A.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 as $1/4$ of the area of the shape.	<p>I can partition (divide) shapes into equal parts with equal areas.</p> <p>I can explain any unit fraction ($1/b$) as one part of a whole divided into b equal parts (e.g., $1/2$, $1/4$, $1/8$). (Relate</p>	My Math Chapter 14 Lesson 7

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			to $\frac{1}{8}$ on a ruler.)	
3 rd 9 Weeks	3.MD.A Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects	3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve contextual problems involving addition and subtraction of time intervals in minutes. For example, students may use a number line to determine the difference between the start time and the end time of lunch.	I can say and write time to the nearest minute. I can measure duration of time in minutes. I can create and solve addition and subtraction word problems involving durations of time measured in minutes (elapsed time). Students may use a number line to determine the difference between the start time and the end time of lunch.	My Math Chapter 11 Lessons 5, 6, 7
3 rd 9 Weeks	3.MD.A Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects	3.MD.A.2 Measure the mass of objects and liquid volume using standard units of grams (g), kilograms (kg), milliliters (ml), and liters (l). Estimate the mass of objects and liquid volume using benchmarks. For example, a large paper clip is about one gram, so a box of about 100 large clips is about 100 grams. Therefore, ten boxes would be about 1 kilogram.	I can estimate prior to measuring. I can measure liquid volumes and masses of objects using standard units of measure. I can use the four operations to solve one- and two-step word problems involving masses and volume. I can use drawings to represent one- and two-step word problems involving mass and	My Math Chapter 11 Lessons 1, 2, 3, 4

			volumes.	
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4 th Nine Weeks				
Time	Cluster	Standards	Learning Targets	Lesson Topics/Resources
4 th 9 Weeks	3.OA.D- Solve problems involving the four operations, and identify and explain patterns in arithmetic.	3.OA.D.8 Solve two-step contextual 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 (See Table 1 - Addition and Subtraction Situations and Table 2 Multiplication and Division Situations).	<p>I can choose the correct operation to perform the first computation, and choose the correct operation to perform the second computation in order to solve two-step word problems.</p> <p>I can construct an equation using a letter or symbol for the unknown quantity.</p> <p>I can decide if my answers are reasonable using mental math and estimation strategies including rounding.</p> <p>(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, i.e., Order of Operations.)</p>	Located at end of each chapter in My Math book (green pages)
4 th 9 Weeks	3.MD. B – Represent and interpret data	3.MD.B.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.	<p>I can use a ruler to measure lengths in whole, half, and quarter (fourth) inches.</p> <p>I can generate and record measurement data using whole, half, and quarter</p>	My Math Chapter 12 Lesson 6 Pull additional resources

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			(fourth) inches. I can create a line plot with a horizontal scale marked off in whole, half, or quarter (fourth) units.	
4 th 9 Weeks	3.MD.D- Geometric measure: recognize perimeter as an attribute of plane figures and distinguish between linear and area	3.MD.D.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 areas or with the same area and different perimeters.	I can calculate the perimeter of shapes made from polygons. I can calculate the perimeter of a polygon with a missing side. I can construct shapes with different areas given the same perimeter. I can construct shapes with different perimeters given the same area.	My Math Chapter 13 Lessons 1, 2 Pull additional resources
4 th 9 Weeks	3.0A.C- Multiply and divide within 100.	3.0A.C.7 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 3rd grade, know from memory all products of two one-digit numbers and related division facts.	I can use concrete models, drawings, and equations to solve multiplication and division problems. I can multiply any two numbers with a product within 100 with ease by choosing strategies that will get to the answer quickly. I can divide whole numbers with a dividend within 100 by a single-digit divisor without remainders. I can fluently and accurately	My Math Chapter 7

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			express multiplication facts through 10 x 10 and relate them to division.	
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