Grade 3 MATH Common Core Pacing Guide

Target Standard (chapters from book)	"I Can" statements	Vocabulary	Time Frame
Chapter 1: **3.NBT.1** – Use place value understanding to round whole numbers to the nearest 10 or 100	*I can round numbers to the nearest 10 *I can round numbers to the nearest 100	-digit -expanded form -place Value -standard Form -word Form -round	**Trimester 1**
Chapter 2: **3.NBT.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 **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	*I can add within 1,000 using many strategies *I can subtract within 1,000 using many strategies * I can identify and describe arithmetic patterns in number charts, addition tables, and multiplication tables.	-Associative Property of Addition -Commutative Property of Addition -Identity Property of Addition -mental math -parentheses -pattern -estimate	**Trimester 1**
Chapter 3: **3.NBT.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 add within 1,000 using many strategies *I can subtract within 1,000 using many strategies	-regroup -inverse Operation	**Trimester 1**
Chapter 4: **3.OA.1** – Interpret products of whole numbers, e.g., interpret 5x7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which	*I understand and can show how to use multiplication in problem solving (5 groups of 7 people is equal to 5x7). * I know all products of 1 digit numbers.	-equal Groups -multiplication -multiplication sentence -multiply -product	**Trimester 1**

a total number of objects can be expressed as 5x7 **3.OA.3** – Chapters 5, 6, & 7 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	* I can solve word problems involving equal groups, arrays, and measurement quantities using drawings and equations.	-factors -Commutative Property of Multiplication -array -combination -tree Diagram	

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Chapter 5: **3.OA.2** – Interpret whole- number quotients of whole numbers, e.g., interpret 56/8 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. For example, describe a context in which a number or shares or a number of groups can be expressed as 56/8. **3.OA.7** – Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8x5 =40, one knows 40/5=8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	*I understand the meaning division problems and how they are related to equal shares. * I can indentify parts of division equations (dividend, divisor, and quotient). * I can explain division as a set of objects partitioned into an equal number of shares. * I know all products of 1 digit numbers.	-division -divide -partition -division Sentence -repeated Subtraction -dividend -divisor -quotient -inverse Operations -related Facts -fact Family	**Trimester 2**
Chapter 6: **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.3** – Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9x80, 5x60) using strategies based on place value and properties of operations	* I can identify and describe arithmetic patterns in number charts, addition tables, and multiplication tables. * I can multiply 1-digit numbers by multiples of 10 and solve using place value properties (9x80=720). *I know all products of 1 digit numbers	-multiple	**Trimester 2**

3.OA.7 – Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8x5 =40, one knows 40/5=8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.			
Chapter 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** – Chapters 5, 6, & 7 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 8x?=48, 5=_/3, 6x6 =? **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.	* I can solve word problems involving equal groups, arrays, and measurement quantities using drawings and equations. *I can determine the unknown number in multiplication and division problems such as in the following. • 8x9=? • 8x?=48 • 28/7=? • ?/6=3 *I can identify parts of multiplication equation (factors and products). * I can identify and describe arithmetic patterns in number charts, addition tables, and multiplication tables.	-known fact -decompose	**Trimester 2**
Chapter 8: **3.OA.1** – Interpret products of whole numbers, e.g., interpret 5x7 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 5x7	*I understand and can show how to use multiplication in problem solving (5 groups of 7 people is equal to 5x7). * I know all products of 1 digit numbers. *I understand the meaning division problems and how they are related to equal shares.	-Multiply -Divide -Product -Quotient -Array -Related Facts -Equal Groups	**Trimester 2**

3.OA.2 – Interpret whole- number quotients of whole numbers, e.g., interpret 56/8 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. For example, describe a context in which a number or shares or a number of groups can be expressed as 56/8. **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.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.	* I can indentify parts of division equations (dividend, divisor, and quotient). * I can explain division as a set of objects partitioned into an equal number of shares. * I can solve word problems involving equal groups, arrays, and measurement quantities using drawings and equations. * I can identify and describe arithmetic patterns in number charts, addition tables, and multiplication tables.		
Chapter 10: **3.NF.2** – Understand a fraction as a number on the number line; represent fractions on a number line diagram. • Represent a fraction 1/b on a number line diagram by defining the interval from 0-1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line • 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	* I can represent a unit fraction on a number line between 0 and 1. * I can explain and show how a fraction can be represented on a number line in two ways: (1) as a number that is located a to the right of o, and (2) as the size of each of the parts when a whole is partitioned into equal parts * I can locate equivalent fractions on a number line. * I can use models to show and explain whole numbers as fractions.	-equivalent fractions -compare -numerator -denominator	**Trimester 2**

3.NF.3 – Chapter 9 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. • Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. • Recognize and generate simple equivalent fractions, (e.g., ½ = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, E.G, by using a visual fraction model. • Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3= 3/1; recognize that 6/1=6; locate 4/4 and 1 at the same point of a number line diagram. • 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. Record the results of comparisons with the symbols >.=, or	* I can use >, <, and = to compare fractions. * I can use models to show and explain equivalent fractions. * I can explain how the size of equal parts can be used to compare two fractions with the same denominator. * I can explain how the size of equal parts can be used to compare two fractions with the same numerator.		

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Chapter 11: **3.MD.2** – 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.	*I can measure liquid volumes and masses of objects using standard units of measure (grams, kilograms, and liters) * I can estimate liquid, volumes, and masses of objects using standard units of measure (grams, kilograms, and liters) * I can use drawings to represent one-step word problems involving masses or volumes. *I can solve one-step word problems involving masses or volumes using addition, subtraction, multiplication, or division.	-gram -kilogram -mass -capacity -liquid volume -liter -metric unit -milliliter -unit	**Trimester 3**
Chapter 12: **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.	* I can gather and record measurement data using whole, half, and quarter inches. * I can make a line plot with the horizontal scale marked off in whole number, half, or quarter units. * I can use a ruler to measure lengths in whole, half, and quarter inches.	-line plot -half inch (1/2) -quarter inch (1/4)	**Trimester 3**
Chapter 13: **3.MD.7** – Relate area to the operations of multiplication and addition. • 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.	* I can explain area as an additive and use this understanding to solve word problems. * I can use area models to explain the distributive property. * I can multiply adjacent side lengths of rectangles to solve word problems.	-area -perimeter -Distributive Property -composite figures -formula -unit square -square unit	**Trimester 3**

• 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. • Use tiling to show in a concrete case that the area of a rectangle with wholenumber side lengths a and b=c is the sum of a x b and a x c. Use area models to represent the distributive property in mathematical reasoning. • Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping parts, applying this technique to solve real world problems. **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 areas or with the same area and different perimeter.	* I can find the perimeter of polygons when given the lengths of all sides. * I can find unknown side lengths of polygons when given the perimeter. * I can solve word problems involving perimeter. * I can show how rectangles with the same perimeter can have different areas and show rectangles with the same areas can have different perimeters.		
Chapter 14: **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	* I can identify polygons. * I can use attributes to identify shapes. * I can use attributes to classify shapes into categories. * I can define quadrilaterals. * I can draw quadrilaterals other than rhombuses, rectangles, and squares. * I can partition (divide) shapes into equal parts with equal areas.	-angle -vertex -right angle -ray -endpoint -polygon -pentagon -hexagon -octagon -triangle -attribute -quadrilateral -right triangle -parallelogram -parallel -square	**Trimester 3**

describe the area of each part as ¼ of the area of the shape.		-rectangle -rhombus -trapezoid	

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