

Lower Township Elementary Schools
Go Math! NJSLS- Math
Topic/Lesson Pacing Chart Grade 3- 2021-22

Lessons/Assessments Planned for 151 Days ALL Together

(151 = 104 days of lessons, 47 days reviews (NJSLA & ch rev) & assessments (B.O.Y, ch tests, mid year, E.O.Y))
 (29 days “extra” for special projects, assemblies, 4th grade prep, reteaching, & anything that pops up)

Getting Ready for 3rd Grade			
Prerequisite Skills Inventory	40 Questions (12-15 each day) mixed with basic addition & subtraction games/activities		3 days in first week
Place Value Review		3.NBT.A.1	2 days

CRITICAL AREA: Developing understanding of multiplication and division and strategies for multiplication and division within 100			
CHAPTER 1 Addition & Subtraction Within 1,000	Lesson	NJSLS- Math	Timeline (14 Days)
September			
	Show What You Know & Vocab Builder		Math Review Time
Lesson 1.2a	Round to the Nearest Ten	3.NBT.A.1	1 day
Lesson 1.2b	Round to the Nearest Hundred	3.NBT.A.1	1 day
Lesson 1.3	Estimate Sums (round & add only, no compatible numbers)	3.NBT.A.2	1 day
Lesson 1.6	Use The Break Apart Strategy to Add (extra resources)	3.NBT.A.2	1 day
Lesson 1.7	Use Place Value to Add	3.NBT.A.2	1 day
Achieve the Core Added Lesson	Addition Fluency (3 dig + 2 dig) & (3 dig + 3 dig)	3.NBT.A.2	1 day
	Mid Chapter Checkpoint		1 day

Lesson 1.8	Estimate Differences (round & subtract, no compatible numbers)	3.NBT.A.1	1 day
Lesson 1.10	Use Place Value to Subtract	3.NBT.A.2	1 day
Added Achieve the Core Lesson	Subtract Across Zero	3.NBT.A.2	1 day
Added Achieve the Core Lesson	Subtraction Fluency (3 dig - 2 dig) & (3 dig - 3 dig)	3.NBT.A.2	1 day
Added Achieve the Core Lesson	Solving 1 & 2 step Addition & Subtraction Word Problems	3.OA.D.8	1 day
	Review		1 day
Note: Go Math Lessons 1.1, 1.4, 1.5, 1.9, 1.11, and 1.12 have been deleted or replaced due to 3rd grade standards not being met by those lessons	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day

CRITICAL AREA: Developing understanding of multiplication and division and strategies for multiplication and division within 100			
CHAPTER 2: Represent & Interpret Data	Lesson	NJSLS- Math	Timeline (10 days)
October			
	Show What You Know & Vocab Builder		Math Review Time
Lesson 2.1	Problem Solving-Organize Data	2.MD.D.10	1 day
Lesson 2.2	Use Picture Graphs	3.OA.D.8	1 day
Lesson 2.3	Make Picture Graphs	3.MD.B.3	1 day
	Mid Chapter Checkpoint		1 day
Lesson 2.4	Use Bar Graphs	3.OA.D8	1 day
Lesson 2.5	Make Bar Graphs	3.MD.B.3	1 day
Lesson 2.6	Algebra-Solve Problems Using Data (add in 2-step word problems)	3.MD.B.3	1 day
Lesson 2.7	Use and Make Line Plots	3.MD.B.3, 3 OA.D.8	1 day

	Review		1 day
Note: Lesson 2.1 addresses a 2nd grade standard, Lessons 2.2 & 2.3 count be combined, 2.4 & 2.5 could also be combined	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day

CRITICAL AREA: Developing understanding of multiplication and division and strategies for multiplication and division within 100			
CHAPTER 3: Understand Multiplication	Lesson	NJSLS- Math	Timeline (8 days)
Oct.			
	Show What You Know & Vocab Builder		Math Review Time
Lesson 3.1	Count Equal Groups	3.OA.A.1, 3	1 day
Lesson 3.2	Algebra-Relate Addition & Multiplication	3.OA.A.1, 3	1 day
	Mid Chapter Checkpoint (remove # line questions)		1 day
Added Achieve the Core Lesson	Connect Equal Groups to Arrays	3.OA.A.1, 3	1 day
Lesson 3.5 & 3.6	Arrays & Commutative Property (see math talks from each lesson)	3.OA.A.3, 3.OA.B.5	1 day
Lesson 3.7	Algebra-Multiply with 1 & 0	3.OA.B.5	1 day
	Review		1 day
Note: Lesson 3.3 has been removed, 3.4 has been moved to chapter 4	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day

CRITICAL AREA: Developing understanding of multiplication and division and strategies for multiplication and division within 100

CHAPTER 4: Multiplication Facts & Strategies November	Lesson	NJSL- Math	Timeline (15 days)
	Show What You Know & Vocab Builder		Math Review Time
Lesson 4.1	Multiply with 2 & 4	3.OA.C.7	1 day
Lesson 4.2	Multiply with 5 & 10	3.OA.C.7	1 day
Lesson 4.3	Multiply with 3 & 6	3.OA.C.7	1 day
Added Achieve the Core Lesson	Concept of Distributive Property	3.OA.B.5 & 3.MD.C7c	1 day
Added Achieve the Core Lesson	Relating Arrays to Distributive Property	3.OA.B.5 & 3.MD.C7c	1 day
Lesson 4.4 & 4.5 (combined for authentic practice)	Distributive Property & Multiply with 7	3.OA.B.5	1 day
	Mid Chapter Checkpoint		1 day
Lesson 4.6	Algebra-Associative Property of Multiplication	3.OA.B.5	1 day
Lesson 4.7	Algebra-Patterns on the Multiplication Table	3.OA.D.9	1 day
Lesson 4.8	Multiply with 8	3.OA.C.7	1 day
Lesson 4.9	Multiply with 9	3.OA.C.7	1 day
Lesson 3.4 (from previous chapter)	Model Multiplication	3. OA.D 8	1 day
Lesson 4.10	Problem Solving-Multiplication: de-emphasize use of table, focus more on 2-step problem solving strategies	3.OA.A.3	1 day
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day

CRITICAL AREA: Developing understanding of multiplication and division and strategies for multiplication and division within 100

CHAPTER 5 Use Multiplication Facts December	Lesson	NJSLs- Math	Timeline (6 days)
	Show What You Know & Vocab Builder		Math Rev.
Lesson 5.1	Algebra-Describe Pattern	3.OA.D.9	1 day
Lesson 5.3 & 5.4 Combined/Condensed	Problem Solving-Use the Distributive Property & Multiples of 10	3.NBT.A.3	1 day
Lesson 5.5	Multiply Multiples of 10 by 1-Digit Numbers	3.NBT.A.3	1 day
Lesson 5.2	Algebra-Find Unknown Factors	3.OA.A4	1 day
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day
Note: 5.2 has been moved to end of chapter & mid chapter checkpoint has been deleted			

CRITICAL AREA: Developing understanding of multiplication and division and strategies for multiplication and division within 100

CHAPTER 6 Understand Division December - January	Lesson	NJSLS- Math	Timeline (12 days)
	Show What You Know & Vocab Builder		Math Review
Lesson 6.1	Problem Solving-Model Division	3.OA.A.3	1 day
Lesson 6.2	Size of Equal Groups	3.OA.A.2	1 day
Lesson 6.3	Number of Equal Groups	3.OA.A.2	1 day
Lesson 6.4	Model with Bar Models	3.OA.A.2	1 day
	Mid Chapter Checkpoint (remove division by repeated subtraction problems bc lesson was deleted)		1 day
Lesson 6.6	Investigate-Model with Arrays	3.OA.A.3	1 day
Lesson 6.7	Algebra-Relate Multiplication & Division	3.OA.B.6	1 day
Lesson 6.8	Algebra-Write Related Facts	3.OA.C.7	1 day
Lesson 6.9	Algebra-Division Rules for 1 and 0	3.OA.B.5	1 day
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day
Note: 6.5 was deleted as it does not address any 3rd grade standards			

CRITICAL AREA: Developing understanding of multiplication and Division within 100

CHAPTER 7 Division Facts & Strategies January	Lesson	NJSLS- Math	Timeline (11 days)
	Show What You Know & Vocab Builder		Math Review
Lesson 7.1 & 7.5	Divide by 2 & 4	3.OA.C.7	1 day
Lesson 7.2 & 7.3	Divide by 10 & 5	3.OA.C.7	1 day
Lesson 7.4 & 7.6	Divide by 3 & 6	3.OA.C.7	1 day
Lesson 7.7 & 7.8	Divide by 7 & 8	3.OA.C.7	1 day
Lesson 7.9	Divide by 9	3.OA.C.7	1 day
	Mid Chapter Checkpoint		1 day
Added Achieve the Core Lesson	Multiplication & Division 1 step Problems	3.OA.A.3	1 day
Added Achieve the Core Lesson	All 4 operations 2 step problems (extra resources)	3.OA.D.8	1 day
Lesson 7.10	Problem Solving-Two-Step Problems (include parentheses work)	3.OA.D.8	1 day
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day
Note: Lesson 7.11 was deleted as order of operations work does not relate to a 3rd grade standard			

OPTIONAL: Mid Year Assessment	Teacher Made (Eileen G has one already made)	All Standards (Ch 1-Ch 7)	1 day
--------------------------------------	---	----------------------------------	--------------

CRITICAL AREA: Developing understanding of fractions, especially unit fractions (fractions with numerator 1) NOTE: fractions should be limited to denominators of 2, 3, 4, 6, and 8			
CHAPTER 8 Understand Fractions Jan - Feb	Lesson	NJSLS- Math	Timeline (12 days)
	Show What you Know & Vocab Builder		Math Review
Added Achieve the Core Lesson	Naming denominators (extends to sixths & eighths)	3. G.A.2	1 day
Added Lesson for Background Review	Lesson 11.10 from 2nd Grade Go Math: Describe Equal Parts	3. NF.A.1	1 day
Added Lesson for Background Review	Partition Whole & Locate Unit Fractions	3. NF.A.1	1 day
Lesson 8.3	Unit Fractions of a Whole	3.NF.A.1	1 day
Lesson 8.4	Fractions of a Whole	3.NF.A.1	1 day
Lesson 8.5	Fractions on a Number Line	3.NF.A.2a,b	1 day
	Mid Chapter Checkpoint		1 day
Added Achieve the Core Lesson	Placing Fractions on Number Line between 0 and 1	3.NF.A.2a, b	1 day
Added Achieve the Core Lesson	Placing Fractions Greater than 1 on number line (extra resources)	3.NF.A.2a, b	1 day
Lesson 8.6	Relate Fractions and Whole Numbers	3.NF.A.2a, b	1 day

		3.NF.C.3c	
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day
Note: Lessons 8.1, 8.2, 8.7, 8.8, 8.9 were deleted			

CRITICAL AREA: Developing understanding of fractions, especially unit fractions (fractions with numerator 1) NOTE: fractions should be limited to denominators of 2, 3, 4, 6, and 8			
CHAPTER 9 Compare Fractions Feb.	Lesson	NJSLS- Math	Timeline (12 days)
	Show What You Know & Vocab Builder		Math Review
Lesson 9.1	Problem Solving * Compare Fractions (have models & fraction strips available)	3.NF.C.3d	2 days
Lesson 9.2	Compare Fractions with the Same Denominator	3.NF.C.3d	1 day
Lesson 9.3	Compare Fractions with the Same Numerator	3.NF.C.3d	1 day
Added Achieve the Core Lesson	Compare Fractions on a Number Line	3.NF.C.3d	1 day
Added Achieve the Core Lesson	Compare Fractions on a Number Line	3.NF.C.3d	1 day
Added Achieve the Core Lesson	Math Review Game (illustrative Math)	3.NF.C.3d	Math Rev or Game Station
	Mid Chapter Checkpoint		1 day

Lesson 9.6	Investigate * Model Equivalent Fractions	3.NF.C.3a	1 day
Added Achieve the Core Lesson	Generating Equivalent Fractions (Extra Resources)	3.NF.C.3a, b	1 day
Added Achieve the Core Lesson	Practice Generating & Recognizing Equivalent Fractions	3.NF.C.3a, b	1 day
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day
Note: Lessons 9.4, 9.5, 9.7 were deleted			

CRITICAL AREA: Developing understanding of the structure of rectangular arrays and of area			
CHAPTER 10 Time, Length, Liquid Volume, Mass March	Lesson	NJSLS- Math	Timeline (7 days: time) (8 days: measurement)
	Show What you Know & Vocab Builder		Math Review
Added Lesson for schema building	Time to the Nearest Hour & Half Hour Review	3.MD.A.1	1 day
Added Lesson for schema building	Time to the Nearest 5 minutes Review	3.MD.A.1	1 day
Lesson 10.1	Time to the Minute	3.MD.A.1	1 day
Lesson 10.2	A.M. & P.M.		Math Rev.
Lesson 10.3	Measure Time Intervals	3.MD.A.1	1 day
Lesson 10.4	Use Time Intervals	3.MD.A.1	1 day

	Time Review		1 day
	Time Test		1 day
Lesson 10.6a	Measure Length to the nearest $\frac{1}{2}$ inch	3.MD.B.4	1 day
Lesson 10.6b	Measure Length to the nearest $\frac{1}{4}$ inch	3.MD.B.4	1 day
Lesson 10.7	Estimate & Measure Liquid Volume	3.MD.A.2	1 day
Lesson 10.8	Estimate and Measure Mass	3.MD.A.2	1 day
Lesson 10.9	Solve Problems About Liquid Volume & Mass	3.MD.A.2	1 day
Added Achieve the Core Lesson	Additional Practice for solving word problems involving mass & volume (extra resources)	3.MD.A.2	1 day
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day
Note: This chapter is split in 2 parts: Time & Measurement with a separate review & test for each part. Lesson 10.5 was deleted as it relates to a 4th grade standard.			

CRITICAL AREA: Developing understanding of the structure of rectangular arrays and of area

CHAPTER 11 Perimeter & Area Mar - April	Lesson	NJSLS- Math	Timeline (15 days)
	Show What You Know & Vocab Builder		Math Review
Lesson 11.1	Investigate* Model Perimeter	3.MD.D.8	1 day
Lesson 11.2	Find Perimeter	3.MD.D.8	1 day
Lesson 11.3	Algebra* Find Unknown Side Lengths	3.MD.D.8	1 day
Lesson 11.4	Understand Area	3.MD.C.5a	1 day
Lesson 11.5	Measure Area	3.MD.C.5b 3.MC.C.6	1 day
Lesson 11.6	Use Area Models	3.MD.C.7a	1 day
	Mid Chapter Checkpoint		1 day
Added Achieve the Core Lesson	Relate Area to X without using grids	3.MD.C.7b	1 day
Added Achieve the Core Lesson	Using Tiling to Relate Area to Distributive Property	3.MD.C.7c	1 day
Added Achieve the Core Lesson	Identifying Area as Additive (extra resource)	3.MD.C.7d	1 day
Lesson 11.9	Same Perimeter, Different Areas	3.MD.D.8	1 day
Lesson 11.10	Same Area, Different Perimeters	3.MD.D.8	1 day

Added Achieve the Core Lesson	Problem Solving	3.OA.D.8	1 day
	Review		1 day
	Test (Check Achieve the Core Test Guidance Document to add/delete/modify questions)		1 day
Note: lessons 11.7 & 11.8 were deleted			

NJSLA Test Prep	Last week of April after Spring Break		5 days
------------------------	--	--	---------------

CRITICAL AREA: Describe & Analyze 2 dimensional shapes			
CHAPTER 12 Two Dimensional Shapes May	Lesson	NJSLS- Math	Timeline (7 days)
	Show What You Know & Vocab Builder		Math Review
Lesson 12.3	Identify Polygons	3.G.A.1	1 day
Lesson 12.4	Describe Sides of Polygons	3.G.A.1	1 day
Lesson 12.5	Classify Quadrilaterals	3.G.A.1	1 day
Lesson 12.6	Draw Quadrilaterals	3.G.A.1	1 day
Lesson 12.9	Investigate*Relate Shapes, Fractions, & Area	3.G.A.2	1 day
	Review		1 day
	Test		1 day

<p>Note: Lesson 12.1, 12.2, 12.7, 12.8 have been deleted as they all address a 4th grade standard only. The Mid Chapter Checkpoint has also been deleted.</p>			
--	--	--	--

End of The Year Math Assessment	50 Questions	14-18 questions/day	3 days
---------------------------------	--------------	---------------------	--------

The following lessons will be completed once chapter 12 is finished.

Getting Ready for Grade 4	
Lesson 1: Numbers to Ten Thousand	Lesson 12: Model Tenths and Hundredths
Lesson 2: Read and Write Numbers to Ten Thousands	Lesson 13: Fractions Greater Than One
Lesson 3: Relative Size on a Number Line	Lesson 14: Equivalent Fractions
Lesson 4: Compare 3- and 4-Digit Numbers	Lesson 15: Equivalent Fractions on a Multiplication Table
Lesson 5: Multiply with 11 and 12	Lesson 16: Same Size, Same Shape
Lesson 6: Divide with 11 and 12	Lesson 17: Algebra • Change Customary Units of Length
Lesson 7: Algebra • Multiplication and Division Relationships	Lesson 18: Algebra • Change Metric Units of Length
Lesson 8: Use Multiplication Patterns	Lesson 19: Estimate and Measure Liquid Volume
Lesson 9: Use Models to Multiply Tens and Ones	Lesson 20: Estimate and Measure Weight
Lesson 10: Model Division with Remainders	Getting Ready Test: Lessons 12–20
Lesson 11: Use Models to Divide Tens and Ones	
Getting Ready Test: Lessons 1–11	

3rd Grade NJSLA Mathematics Standards

Standard #	Standard	Ch. #
OA	Operations & Algebraic Thinking	
3.OA.A.1	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as 5×7	Ch 3 (3 lessons)
3.OA.A.2	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. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.	Ch 6 (3 lessons)
3.OA.A.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.	Ch 3 (3 lessons) Ch 4 (1 lesson) Ch 6 (2 lessons) Ch 7 (1 lesson)
3.OA.A.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 $8 \times ? = 48$, $5 = \diamond \div 3$, $6 \times 6 = ?$.	Ch 5 (1 lesson)
3.OA.B.5	Apply properties of operations as strategies to multiply and divide.2 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 $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)	Ch 3 (2 lessons) Ch 4 (3 lessons) Ch 6 (1 lesson)
3.OA.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	Ch 6 (1 lesson)
3.OA.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 Grade 3, know from memory all products of two one-digit numbers.	Ch 4 (5 lessons) Ch 6 (1 lesson) Ch 7 (5 lessons)
3.OA.D.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.	Ch 1, 2, 4, 7, 11
3.OA.D.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	Ch 4 (1 lesson) Ch 5 (1 lesson)

NBT	Number & Operations in Base Ten	
3.NBT.A.1	Use place value understanding to round whole numbers to the nearest 10 or 100	Ch 1 (3 lessons)
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.	Ch 1 (7 lessons)
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.	Ch 5 (2 lessons)
NF	Number & Operations: Fractions	
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; understand a fraction a/b as the quantity formed by “ a ” parts of size $1/b$.	Ch 8 (4 lessons)
3.NF.B.2a	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 to 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.	Ch 8 (4 lessons)
3.NF.B.2b	Represent a fraction a/b on a number line diagram by marking off 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.	Ch 8 (4 lessons)
3.NF.C.3a	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.	Ch 9 (3 lessons)
3.NF.C.3b	Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.	Ch 9 (2 lessons)
3.NF.C.3c	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.	Ch 8 (1 lesson)
3.NF.C.3d	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 $<$, and justify the conclusions, e.g., by using a visual fraction model.	Ch 9 (6 lessons)
MD	Measurement & Data	
3.MD.A.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.	Ch 10 (5 lessons)

3.MD.A.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). ⁶ 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.	Ch 10 (4 lessons)
3.MD.B.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 5 pets	Ch 2 (4 lessons)
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.	Ch 10 (2 lessons)
3.MD.C.5a	Recognize area as an attribute of plane figures and understand concepts of area measurement. 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.	Ch 11 (1 lesson)
3.MD.C.5b	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.	Ch 11 (1 lesson)
3.MD.C.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and nonstandard units).	Ch 11 (1 lesson)
3.MD.C.7a	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.	Ch 11 (1 lesson)
3.MD.C.7b	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.	Ch 11 (1 lesson)
3.MD.C.7c	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.	Ch 4 (2 lessons) Ch 11 (1 lesson)
3.MD.C.7d	Recognize the 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.	Ch 11 (1 lesson)
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.	Ch 11 (5 lessons)
G	Geometry	
3.G.A.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.	Ch 12 (4 lessons)
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	Ch 8 (1 lesson) Ch 12 (1 lesson)

