

2nd Grade Math Pacing Guide 2013-14

Days	Chapter Title	Big Idea	Lesson Titles	Objective	Standards	Vocabulary
7	Start Smart	Students will review kindergarten and first grade concepts.	Start Smart 1 – 6.	Review concepts and administer diagnostic assessments.	N/A	N/A
4	Chapter 1 Number Sense and Patterns (Problem Solving)	Students make sense and persevere in solving problems. They learn to look for and make use of structure within a hundreds chart.	1-3 Problem Solving Strategy: Use Logical Reasoning	Use the <i>logical reasoning</i> strategy to solve problems.	Focus on MP	after before between digit estimate, is equal to (=) is greater than (>) is less than (<) ones place value tens
			1-9 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	
			1-10 Patterns on a Hundred Chart	Create and use patterns on a hundred chart to solve problems	2.OA.1, 2.OA.2, 2.NBT.2*	

12	Chapter 2 Addition Strategies	Students examine addition strategies and build fluency for basic addition number facts to 20.	2-1 Addition Properties	Use the commutative property and the zero property to find sums	2.OA.1, 2.OA.2, 2.NBT.5, 2.NBT.9	add addend sum doubles place value commutative property associative property identity property
			2-2 Count and Add On	Use a number line to count on when adding	2.OA.1, 2.OA.2	
			2-3 Problem Solving Strategy: Act it Out	Use the act it out strategy to solve problems	Focus on MP	
			2-4 Doubles	Use doubles facts to solve other problems	2.OA.1, 2.OA.2	
			2-5 Near Doubles	Use doubles facts to find other sums	2.OA.1, 2.OA.2	
			2-6 Make 10	Make 10 to solve addition problems	2.OA.1, 2.OA.2	
			2-7 Add Three Numbers	Group addends differently to make the same sum	2.OA.1, 2.OA.2	
			2-8 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	

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12	Chapter 3 Subtraction Strategies	Students build on their understanding of whole number operations as they learn subtraction strategies and build fluency for basic subtraction number facts to 20.	3-1 Count Back to Subtract	Count back to find a difference	2.OA.1, 2.OA.2	count back difference fact family inverse missing addend related facts subtract place value commutative property associative property identity property
			3-2 Subtract All and Subtract Zero	Subtract all or none to find a difference	2.OA.1, 2.OA.2	
			3-3 Use Doubles to Subtract	Use doubles facts to find the difference	2.OA.1, 2.OA.2	
			3-5 Relate Addition and Subtraction	Subtract from numbers through 20 using addition. Identify and write different ways to name the same number	2.OA.1, 2.OA.2	
			3-6 Missing Addends	Find the missing number in addition and subtraction sentences	2.OA.1, 2.OA.2	
			3-7 Fact Families	Identify and write fact families	2.OA.1, 2.OA.2, 2.NBT.9	
			3-8 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	
			CCSS 1 Two-Step Word Problems	Use two steps to solve a problem.	2OA.1	

11	Chapter 4 Data and Graphs	Students will learn basic concepts about data and graphs including: taking surveys, creating picture and bar graphs, making line plots, and examining representations of data.	4-1 Take a Survey	Use tally marks in a survey. Use and compare data	2.MD.10	bar graph data key mode picture graph pictograph range survey symbol tally marks length unit line plot scale
			4-2 Picture Graphs	Make, read, and use data in a picture graph	2.MD.10	
			4-3 Problem Solving Strategy: Write a Number Sentence	Use the <i>write a number sentence</i> strategy to solve problems	Focus on MP	
			4-4 Bar Graphs	Make, read, and use data in a bar graph	2.MD.10	
			4-5 Different Ways to Show Data	Show the same data in more than one way	2.MD.10	
			CCSS 2 Make Line Plots	Use data to create line plots.	2.MD.9	
			CCSS 3 Analyze Line Plots	Analyze the data contained in line plots.	2.MD.9	
			4-7 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	

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12	Chapter 5 Two-Digit Addition	Students will gain an understanding of place value and basic addition facts thus creating a solid foundation on which the concept of two-digit addition is built.	5-3 Problem Solving Strategy: Work Backward	Use the work backward strategy to solve problems	Focus on MP	regroup round place value commutative property associative property identity property compose decompose
			5-4 Regroup Ones as Tens	Regroup 10 ones as 1 ten	2.OA.1, 2.NBT.5, 2.NBT.9	
			5-5 Add One-Digit Numbers and Two-Digit Numbers	Add one-digit numbers to two-digit numbers with and without regrouping	2.OA.1, 2.NBT.5, 2.NBT.9	
			5-6 Add Two-Digit Numbers	Add two-digit numbers with and without regrouping	2.OA.1, 2.NBT.5, 2.NBT.9	
			5-7 Estimate Sums	Estimate the sum of two-digit addends by rounding	2.OA.1, 2.NBT.5, 2.NBT.7.1*, 2.NBT.9	
			CCSS 4 Add Three and Four Two-Digit Numbers	Add three and four two-digit numbers	2.NBT.6, 2.NBT.9	
			5-9 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	

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12	Chapter 6 Two-Digit Subtraction	Students will gain an understanding of place value and basic subtraction facts thus creating a solid foundation on which the concept of two-digit subtraction is built.	6-3 Regroup Tens and Ones	Understand numbers with and without regrouping	2.OA.1, 2.NBT.5, 2.NBT.9	count back difference estimate inverse regroup round subtract place value commutative property associative property identity property compose decompose
			6-4 Problem Solving Strategies: Write a Number Sentence	Use the write a number sentence strategy to solve problems	Focus on MP	
			6-5 Subtract One-Digit Numbers from Two-Digit Numbers	Subtract a one-digit number from a two-digit number with and without regrouping	2.OA.1, 2.NBT.5, 2.NBT.9	
			6-6 Subtract Two-Digit Numbers	Subtract two-digit numbers with and without regrouping	2.OA.1, 2.NBT.5, 2.NBT.9	
			6-7 Check Subtraction	Check subtraction by using addition	2.OA.1, 2.NBT.5	
			6-8 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	
			6-9 Estimate Differences	Estimate differences by rounding to the nearest ten	2.OA.1, 2.NBT.5, 2.NBT.7.1*, 2.NBT.9	
			CCSS 5 More Two-Step Word Problems	Read and solve two-step word problems	2.OA.1	

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12	Chapter 7 Money	Students will recognize the value of money and skip count to find the monetary amount of coins and dollars. They will use learned concepts in everyday life.	7-1 Pennies, Nickels, and Dimes	Skip count to find the value of a group of coins	2.MD.8	cents cent sign (¢) decimal point (.) dimes dollar dollar sign (\$) half dollars nickels pennies quarters
			7-2 Quarters and Half Dollars	Identify a quarter and half-dollar; skip count to find the value of a group of coins	2.MD.8	
			7-3 Count Coins	Skip count to find the value of a group of coins	2.MD.8	
			7-4 Problem Solving Strategy: Act it Out	Use the act it out strategy to solve problems	Focus on MP	
			7-5 Dollar	Identify coin combinations equal to one dollar	2.MD.8	
			7-6 Dollars and Cents	Identify coin combinations greater than and equal to one dollar	2.MD.8	
			7-7 Compare Money Amounts	Compare the values of groups of money	2.MD.8	
			7-10 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	

12	Chapter 8 Multiplication Concepts and Odd/Even Numbers	Students will use arrays and patterns to learn multiplication and even/odd number concepts.	CCSS 6 Skip Count on a Hundred Chart	Use patterns to skip count.	2.OA.1, 2.OA.2, 2.NBT.2*	array divide division sentence equal groups multiplication sentence multiply product remainder rectangular array addends odd even
			8-1 Equal Groups	Relate skip-counting to multiplication. Count by multiples to do multiplication.	2.NBT.2*	
			CCSS 7 Repeated Addition	Use repeated addition to add equal groups.	2.OA.4, 2.NBT.2*	
			CCSS 8 Repeated Addition with Arrays	Use arrays with repeated addition.	2.OA.4	
			8-5 Problem Solving Strategy: Draw a Picture	Use the draw a picture strategy to solve problems	Focus on MP	
			8-9 Problem-Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems	Focus on MP	
			CCSS 9 Even and Odd Numbers	Find even and odd numbers in number patterns.	2.OA.3	
			CCSS 10 Sums of Equal Numbers	Find sums of equal numbers.	2.OA.3	

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12	Chapter 10 Numbers to 1,000	Students learn to count by hundreds and read and write number symbols for hundreds. They compare and order numbers, and identify increasing and decreasing patterns.	10-1 Hundreds	Relate hundreds, tens, and ones.	2.NBT.1, 2.NBT.1a, 2.NBT.1b	expanded form hundreds thousand place value greater than (>) less than (<) equal to (=)
			10-2 Hundreds, Tens, and Ones	Read, write, and model numbers to 1,000	2.NBT.1, 2.NBT.1a, 2.NBT.1b, 2.NBT.3	
			10-3 Problem Solving Strategy: Make a List	Use the make a list strategy to solve problems.	Focus on MP	
			10-4 Place Value to 1,000	Identify and use words, models, expanded form to represent numbers to 1,000.	2.NBT.1, 2.NBT.1a, 2.NBT.1b, 2.NBT.3	
			10-5 Read and Write Numbers to 1,000	Read and write numbers through 1,000.	2.NBT.3	
			10-6 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems.	Focus on MP	
			10-7 Compare Numbers	Compare three-digit numbers using $<$, $>$, and $=$.	2.NBT.4	
			10-8 Order Numbers	Use place value to order three-digit numbers.	2.NBT.4	
			10-9 Number Patterns	Use number patterns to help you count	2.NBT.2*, 2.NBT.8	

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12	Chapter 11 Geometry	Students will identify faces, edges, and vertices. They will relate plane and solid shapes and create new shapes. They partition plane shapes into halves, thirds, and fourths. They will use partitions within a rectangle to find area.	11-1 Solid Shapes	Identify solid shapes.	2.G.1	attributes angles sides faces row column equal shares whole halves thirds fourths <i>Plane shapes:</i> Circles Triangles squares Rectangles Parallelograms Hexagons Trapezoids Quadrilaterals Rhombus Kites Pentagons <i>Solid Shapes:</i> Sphere Cubes Pyramid Cone Cylinder Rectangular prism
			11-2 Faces, Edges, and Vertices	Describe the faces, edges, and vertices of solid shapes.	2.G.1	
			CCSS 11 Two-Dimensional Shapes	Identify two-dimensional geometric shapes.	2.G.1	
			11-4 Problem Solving Strategy: Find a Pattern	Use the find a pattern strategy to solve problems.	2.G.1	
			11-5 Sides and Vertices	Describe plane shapes.	2.G.1	
			11-6 Relate Plane Shapes to Solid Shapes	Make plane shapes from faces of solid shapes.	2.G.1	
			11-7 Make New Shapes	Put shapes together to form new shapes.	2.G.1	
			11-8 Problem Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems.	Focus on MP	
			CCSS 12 Halves, Thirds, and Fourths	Partition two-dimensional shapes into two, three, or four equal shares.	2.G.3	
			CCSS 13 Area	Determine the area of rectangle.	2.G.2	

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21	Chapter 12 Measurement and Time	Students master basic concepts by measuring familiar objects using different standard units of measurement. Students will be able to use an analog and digital clock to tell times up to intervals of 5.	12-2 Measure to the Nearest Inch	Estimate and measure length using inches.	2.MD.1, 2.MD.3, 2.MD.5	centimeter inch measure meter quarter hour yard foot length unit number line diagram sums differences analog clock digital clock A.M. P.M. line plot scale
			12-3 Inch, Foot, and Yard	Estimate and measure to the nearest inch, foot, or yard.	2.MD.1, 2.MD.3, 2.MD.5	
			CCSS 14 Select and Use Customary Tools	Choose the appropriate tool and measure length.	2.MD.1, 2.MD.3	
			CCSS 15 Compare Customary Lengths	Measure to compare customary lengths.	2.MD.4, 2.MD.5	
			CCSS 16 Relate Inches, Feet, and Yards	Use measurement to relate inches, feet, and yards.	2.MD.2	
			12-4 Problem Solving Investigation: Find a Pattern	Use the find a pattern strategy to solve problems.	Focus on MP	
			12-5 Measure to the Nearest Centimeter	Estimate and measure length using centimeters.	2.MD.1, 2.MD.3, 2.MD.5	
			12-6 Centimeter and Meter	Estimate and measure to the nearest centimeter or meter.	2.MD.1, 2.MD.3, 2.MD.5	
			CCSS 17 Select and Use Metric Tools	Measure objects to find the relationship between centimeters and meters.	2.MD.1, 2.MD.3	
			CCSS 18 Compare Metric Lengths	Use measurement to compare metric lengths.	2.MD.4, 2.MD.5	
			CCSS 19 Relate Centimeters and Meters	Use measurement to relate centimeters and meters.	2.MD.2	
			CCSS 20 Measure on a Number Line	Use a number line to measure.	2.MD.5, 2.MD.6	
			CCSS 21 Measurement Data	Measure lengths to generate data.	2.MD.9	
			CCSS 22 Time to the Hour	Read and write time to the nearest hour.	2.MD.7*	
			CCSS 23 Time to the Half Hour	Recognize time to the nearest half hour.	2.MD.7*	
			12-7 Time to the Quarter Hour	Tell time to the quarter hour.	2.MD.7*	
CCSS 24 Time to Five Minute Intervals	Skip count by fives to tell time.	2.MD.7*				
12-8 Problem solving Investigation: Choose a Strategy	Choose the best strategy to solve problems.	Focus on MP				

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10	Chapter 13 Three-Digit Addition	Students will begin the three-digit addition process to add hundreds such as 300+200. Students may have to compose numbers into tens and hundreds. Students will also learn to estimate sums.	13-1 Add Hundreds	Use basic facts and mental math to add hundreds.	2.NBT.1, 2.NBT.1a, 2.NBT.1b	digit estimate hundreds ones place value regroup tens commutative property associative property identity property compose decompose
			CCSS 25 Mentally Add 10 or 100	Add 10 or 100 mentally.	2.NBT.8, 2.NBT.9	
			13-2 Regroup Ones	Find the sum of two three-digit numbers, regrouping ones.	2.NBT.7, 2.NBT.9	
			13-3 Regroup Tens	Add three-digit numbers with and without regrouping.	2.NBT.7, 2.NBT.9	
			13-4 Problem-Solving Strategy: Make a Table	Use the make a table strategy to solve a problem.	Focus on MP	
			13-5 Estimate Sums	Estimate the sum of three-digit addends by rounding.	2.NBT.7, 2.NBT.7.1*	
11	Chapter 14 Three-Digit Subtraction	Students will learn to subtract by decomposing hundreds and tens. Students will also learn to estimate differences.	14-1 Subtract Hundreds	Use basic facts and mental math to subtract hundreds.	2.NBT.7, 2.NBT.9	expanded form hundreds thousand place value commutative property associative property identity property compose decompose
			CCSS 26 Mentally Subtract 10 or 100	Subtract 10 or 100 mentally.	2.NBT.8, 2.NBT.9	
			14-2 Regroup Tens	Regroup tens to subtract three-digit numbers. NS 2.0, 2.2;	2.NBT.7, 2.NBT.9	
			14-3 Regroup Hundreds	Regroup hundreds to subtract three-digit numbers.	2.NBT.7, 2.NBT.9	
			14-4 Problem-Solving Strategy: Guess and Check	Use the guess and check strategy to solve problems.	Focus on MP	
			14-5 Estimate Differences	Estimate the difference of three-digit numbers by rounding.	2.NBT.7, 2.NBT.7.1*	
			14-7 Problem-Solving Investigation: Choose a Strategy	Choose the best strategy to solve problems.	Focus on MP	

Total=160 Instructional Days

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*Performance Task Resources

1. K-5mathteaching resources
 - a. Number of the week
 - b. Roll 3 digits
 - c. Make six numbers
2. Illustrativemath.com
 - a. 10 tens make a hundred
 - b. Looking at numbers every which way
 - c. Bundling and unbundling
3. www.rda.aps.edu/mathtaskbank
 - a. Chocolate, Chocolate, Chocolate
 - b. License Plates
 - c. Sweet Sale
4. <http://schools.nyc.gov>
 - a. Resource for how to grade performance tasks