2ⁿᵈ GRADE MATH PACING GUIDE 2020-2021

TOPICS	STARTING	ENDING	STANDARDS
TOPIC 1 FLUENTLY ADD AND SUBTRACT WITHIN 20	8/31/2020	9/18/2020	MAFS.2.OA.2.2, MAFS.2.OA.1a
TOPIC 2 WORK WITH EQUAL GROUPS	9/21/2020	9/30/2020	MAFS.2.OA.3.3, MAFS.2.OA.2.2, MAFS.2.OA.3.4
TOPIC 3 ADD WITHIN 100 STRATEGIES	10/1/2020	10/15/2020	MAFS.2.NBT.2.5 , MAFS.2.NBT.2.9, MAFS.2.NBT.2.6
TOPIC 4 FLUENTLY ADD WITHIN 100	10/16/2020	11/2/2020	MAFS.2.NBT.2.5, MAFS.2.NBT.2.9
TOPIC 5 SUBTRACT WITHIN 100	11/3/2020	11/18/2020	MAFS.2.NBT.2.5, MAFS.2.NBT.2.9
TOPIC 6 FLUENTLY SUBTRACT WITHIN 100	11/19/2020	12/4/2020	MAFS.2.NBT.2.5, MAFS.2.NBT.2.9
TOPIC 7 SOLVING PROBLEMS-ADD/SUBTRACT	12/7/2020	1/6/2021	MAFS.2.OA.1.1, MAFS.2.NBT.2.5
TOPIC 8 WORK WITH TIME AND MONEY	1/7/2021	1/22/2021	MAFS.2.MD.3.8 (a,b,c,d), MAFS.2.NBT.1.2, MAFS.2.MD.3.7
TOPIC 9 NUMBERS TO 1,000	1/25/2021	2/11/2021	MAFS.2.NBT.1.1 (a,b), MAFS.2.NBT.1.2, MAFS.2.NBT.1.3, MAFS.2.NBT.2.8, MAFS.2.NBT.1.4
TOPIC 10 ADD WITHIN 1,000	2/12/2021	2/26/2021	MAFS.2.NBT.2.8, MAFS.2.NBT.2.9, MAFS.2.NBT.2.7
TOPIC 11 SUBTRACT WITHIN 1,000	3/1/2021	3/23/2021	MAFS.2.NBT.2.8, MAFS.2.NBT.2.7
TOPIC 12 MEASURING LENGTH	3/24/2021	4/9/2021	MAFS.2.MD.1.3, MAFS.2.MD.1.2, MAFS.2.MD.1.1, MAFS.2.MD.1.4, MAFS.2.MD.2.5

TOPIC 13 SHAPES & THEIR ATTRIBUTES	4/12/2021	4/28/2021	MAFS.2.G.1.1, MAFS.2.MD.1.1, MAFS.2.OA.2.2, MAFS.2.G.1.2, MAFS.2.OA.3.4, MAFS.2.G.1.3, MAFS.2.MD.1.2
TOPIC 14 MORE ADD/SUBTRACT/LENGTH	4/29/2021	5/10/2021	MAFS.2.MD.2.5, MAFS.2.OA.1.1, MAFS.2.MD.2.6
TOPIC 15 GRAPHS AND DATA	5/11/2021	5/24/2021	MAFS.2.MD.4.9, MAFS.2.MD.4.10
TOPIC 16 STEP UP TO 3RD GRADE	As Time Allows		MAFS.3.OA.1.2, MAFS.3.OA.1.3, MAFS.3.NBT.1.2 MAFS.3.G.1.2 , MAFS.3.NF.1.1

2nd GRADE MATH FOCUS GUIDE 2020-2021

MAFS Major Cluster	Related *envisions Florida*	Resources/Projects
All Standards	**Baseline Assessment Performance Matters** **Math Background**	
Ask and Answer	**Topic 1: Fluently Add and Subtract within 20** **Focus on:** □ **Building Fluency with Addition and Subtraction** □ **Math Buddies to 10** □ **Fact Families** **Non-negotiable (Must Do):** □ Addition Fact Strategies 1-1 □ make a 10 to add 1-3 □ addition fact patterns 1-4	Number Facts Bingo Counting Up to Subtract 3-Act Math: Losing Marbles

	☐ count on and count back to subtract 1-5 ☐ think addition to subtract 1-6 ☐ solve addition and subtraction word problems 1-9 **Enrichment Lessons (Can Do):** ☐ Doubles and Near Doubles 1-3 ☐ Make a 10 to Subtract 1-7 ☐ practice addition and subtraction facts 1-8 ☐ construct arguments 1-10	
MAFS.2.OA.3.3 **MAFS.2.OA.3.4**	**Topic 2: Work with Equal Groups** ☐ **Groups up to 20 (Only) are odd or even** ☐ **Use of manipulatives** **Non-negotiable (Must Do):** ● even and odd numbers 2-1 ● continue even and odd numbers 2-2 ● use arrays to find totals 2-3 **Enrichment Lessons (Can Do):** ● make arrays to find totals 2-4 ● model with math 2-5	Skip Counting Repeated Addition Even and Odd Numbers
MAFS.2.NBT.2.5 **MAFS.2.NBT.2.9** **MAFS.2.NBT.2.6**	**Topic 3: Add within 100 Using Strategies** ******THIS CHAPTER IS ONLY STRATEGIES. PRACTICE IS IN TOPIC 4*********** ASSESS AFTER TOPIC 4 **Focus on:** ☐ **Adding Vertically and Horizontally** ☐ **Addition Strategies with regrouping** **Non-negotiable (Must Do):** ● break apart numbers to add ● practice using adding strategies **Enrichment Lessons (Can Do):** ● add tens and ones on a hundred chart	Add 2-Digit Numbers 3-Digit Addition Problem Solving 3-Act Math: Piled Up

	● add tens and ones on an open number line ● add using compensation ● solve one-step and two-step problems ● construct arguments	

MAFS.2.NBT.2.5
 	
MAFS.2.NBT.2.9
	Topic 4: Fluently Add within 100
	
	Focus on:
	
	   ☐ **Addition Strategies with regrouping**
	   ☐ **Vertical Addition**
	
	Non-negotiable (Must Do):
	
	● add 2-digit numbers using models 4-1
	● continue to add 2-digit numbers using models 4-2
	● add more than two-digits 4-6
	● practice adding using strategies 4-7
	● solve one-step and two-step problems 4-8
	
	Enrichment Lessons (Can Do):
	
	● add using partial sums 4-3
	● add using mental math and partial sums 4-4
	● break apart numbers and add using mental math 4-5
	● model with math 4-9
		Subtract 2-Digit Numbers
		
		Problem Solving

MAFS.2.NBT.2.5
 	
MAFS.2.NBT.2.9
	Topic 5: Subtract within 100 Using Strategies
	
	******THIS CHAPTER IS ONLY STRATEGIES. PRACTICE IS IN TOPIC 6**********
	
	ASSESS AFTER TOPIC 6
	
	Focus on:
	
	   ☐ **Vertical Subtraction ***NOT TAUGHT IN BOOK*****
	   ☐ **Subtraction with regrouping**
	   ☐ **Use of manipulatives (breaking apart tens rod into ones cubes)**
	
	Non-negotiable (Must Do):
	
	● break apart numbers to subtract
	● practice subtracting using strategies
	● solve one-step and two-step problems
		Numbers Many Ways
		
		Popsicle Place Value
		
		Compare Numbers Game
		
		3-Act Math: Laundry Day

	Enrichment Lessons (Can Do): ● subtract tens and ones on a hundred chart ● count back to subtract on an open number line ● add up to subtract using an open number line ● subtract using compensation ● critique reasoning	
MAFS.2.NBT.2.5 **MAFS.2.NBT.2.9**	**Topic 6: Fluently Subtract within 100** **Focus on:** □ **Vertical Subtraction ***NOT TAUGHT IN BOOK***** □ **Subtraction with regrouping** □ **Use of manipulatives (breaking apart tens rod into ones cubes)** **Non-negotiable (Must Do):** ● subtract 1-digit numbers using models 6-1 ● subtract 2-digit numbers using models 6-2 ● subtract using partial differences 6-3 ● practice subtracting 6-5 ● solve one-step and two-step problems 6-6 **Enrichment Lessons (Can Do):** ● continue to subtract w/ partial differences 6-4 ● Reasoning 6-7	
MAFS.2.OA.1.1 **MAFS.2.NBT.2.5**	**Topic 7: More Solving Problems Involving Adding and Subtracting** **Focus on:** □ **Representing Word Problems in Drawings/Models** □ **Focus on True Equations** **Non-negotiable (Must Do):** ● represent addition and subtraction problems 7-1 ● solve two-step problems 7-4 ● make true equations 7-6 **Enrichment Lessons (Can Do):** ● mixed practice: solve addition and subtraction problems 7-2	<mark>Mentally Add 10 to 100</mark> <mark>Add Hundreds</mark> <mark>Problem Solving</mark> <mark>3-Act Math: The Water Jug</mark>

	- continue practice with addition and subtraction problems 7-3 - continue to solve two-step problems 7-5 - reasoning 7-8	
MAFS.2.MD.3.8 (a,b,c,d) MAFS.2.NBT.1.2 MAFS.2.MD.3.7	**Topic 8: Work with Time and Money** **Focus on:** ☐ **Manipulatives** **Non-negotiable (Must Do):** - solve problems with coins 8-1 - continue to solve problems with coins 8-2 - solve problems with dollar bills 8-3 - tell time and write time to five minutes 8-6 - A.M. and P.M. 8-8 **Enrichment Lessons (Can Do):** - Continue to problem solve with dollar bills 8-4 - Reasoning 8-5 - Tell time before and after the hour 8-7	Help Ms. Betty STEM Roll A Dollar Counting Money 3-Act Math: Makes Cents
All Standards	**Mid-Year Assessment Performance Matters**	
MAFS.2.NBT.1.1 (a,b) MAFS.2.NBT.1.2 MAFS.2.NBT.1.3 MAFS.2.NBT.2.8 MAFS.2.NBT.1.4	**Topic 9: Numbers to 1,000** **Focus on:** ☐ **Manipulatives** ☐ **Place Value Misconceptions** ☐ **Strong Place Value Foundation** **Non-negotiable (Must Do):** - understand hundreds 9-1 - models and 3-digit numbers 9-2 - name place values 9-3 - read and write 3-digit numbers 9-4 - skip count by 5s, 10s, and 100s to 1,000 9-7 - compare numbers using place value 9-8 - compare numbers on the number line 9-9 **Enrichment Lessons (Can Do):** - different ways to name the same number 9-5	0

	● place-value patterns with numbers 9-5 ● look for and use structure 9-10	

MAFS.2.NBT.2.8
 	
MAFS.2.NBT.2.9
 	
MAFS.2.NBT.2.7
	Topic 10: Adding within 1,000 Using Models and Strategies
	
	Focus on:
	
	   ☐ **Manipulatives**
	   ☐ **Place Value Foundations**
	
	<u>**Non-negotiable (Must Do):**</u>
	
	● add 10 and 100 10-1
	● add using models 10-3
	● continue to add using models and place value 10-4
	● add using place value and partial sums 10-5
	
	<u>**Enrichment Lessons (Can Do):**</u>
	
	● add on an open number line 10-2
	● explain addition strategies 10-6
	● repeated reasoning 10-7
		<mark>Picture Graphs</mark>
		
		<mark>Line Plots</mark>

MAFS.2.NBT.2.8
 	
MAFS.2.NBT.2.8
 	
MAFS.2.NBT.2.7
	Topic 11: Subtract within 1,000 Using Models and Strategies
	
	Focus on:
	
	   ☐ **Manipulatives**
	   ☐ **Place Value Foundations**
	
	<u>**Non-negotiable (Must Do):**</u>
	
	● subtract 10 and 100 11-1
	● subtract using models 11-3
	● subtract using models and place value 11-4
	
	<u>**Enrichment Lessons (Can Do):**</u>
	
	● subtract on an open number line 11-2
	● explain subtraction strategies 11-5
	● make sense and persevere 11-6	

MAFS.2.MD.1.3
 	
MAFS.2.MD.1.2
 	
MAFS.2.MD.1.1
	Topic 12: Measuring Length
	
	Focus on:
	
	   ☐ **Use of a Ruler**
	   ☐ **Centimeter/Inches**	

MAFS.2.MD.1.4 MAFS.2.MD.2.5	**Non-negotiable (Must Do):** ● measure with inches 12-2 ● inches, feet, and yards 12-3 ● measure with centimeters 12-5 ● centimeters and meters 12-6 **Enrichment Lessons (Can Do):** ● estimating length 12-1 ● measure length using different customary units 12-4 ● measure length using different metric units 12-7 ● compare lengths 12-8 ● precision 12-9	
All Standards	**End of Year Assessment Performance Matters**	
MAFS.2.G.1.1 MAFS.2.MD.1.1 MAFS.2.OA.2.2 MAFS.2.G.1.2 MAFS.2.OA.3.4 MAFS.2.G.1.3 MAFS.2.MD.1.2	**Topic 13: Shapes and Their Attributes** **Focus on:** ☐ **Manipulatives** **Non-negotiable (Must Do):** ● polygons and angles 13-2 ● cubes 13-4 ● equal squares 13-5 ● partition shapes 13-6 ● equal shares, different shapes 13-7 **Enrichment Lessons (Can Do):** ● 2-dimensional shapes ● draw 2-dimentionsl shapes ● repeated reasoning	==3-Act Math: Straw Shaped==
MAFS.2.MD.2.5 MAFS.2.OA.1.1 MAFS.2.MD.2.6	**Topic 14: More Addition, Subtraction and Length** ==***SAVE UNTIL AFTER SAT IF TESTING******== **Focus on:** ☐ **Problem Solving** **Non-negotiable (Must Do):** ● add and subtract with measurements ● find unknown measurements	==Measuring Madness== ==WP Measuring Length== ==Number Line==

	Enrichment Lessons (Can Do): ● continue to find unknown measurements ● add and subtract on a number line ● use appropriate tools	
MAFS.2.MD.4.9 MAFS.2.MD.4.10	**Topic 15: Graphs and Data** **Focus on:** ☐ **Problem Solving** **Non-negotiable (Must Do):** ● line plots ● more line plots ● bar graphs ● picture graphs **Enrichment Lessons (Can Do):** ● draw conclusions from graphs ● reasoning	Match 2-D Shapes Partitioning Shapes Problem Solving 3-Act Math: Caps Sized

Mathematics Florida Standards (MAFS) Grade 2

Domain: OPERATIONS AND ALGEBRAIC THINKING	

Cluster 1: Represent and solve problems involving addition and subtraction.

STANDARD CODE	STANDARD
MAFS.2.OA.1.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts
MAFS.2.OA.1.a	Determine the unknown whole number in an equation relating four or more whole numbers. For example, determine the unknown number that makes the equation true in the equations $37 + 10 + 10 =$ _____ $+ 18$, $? - 6 = 13 - 4$, and $15 - 9 = 6 + \square$.

Cluster 2: Add and subtract within 20.

STANDARD CODE	STANDARD
MAFS.2.OA.2.2	Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. *Cognitive Complexity:* Level 1: Recall

Cluster 3: Work with equal groups of objects to gain foundations for multiplication.

STANDARD CODE	STANDARD

MAFS.2.OA.3.3	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts
MAFS.2.OA.3.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. *Cognitive Complexity:* Level 1: Recall

Domain: NUMBER AND OPERATIONS IN BASE TEN

Cluster 1: Understand place value.

STANDARD CODE	STANDARD
MAFS.2.NBT.1.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens — called a "hundred." b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts
MAFS.2.NBT.1.2	Count within 1000; skip-count by 5s, 10s, and 100s. *Cognitive Complexity:* Level 1: Recall

MAFS.2.NBT.1.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. *Cognitive Complexity:* Level 1: Recall
MAFS.2.NBT.1.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts

Cluster 2: Use place value understanding and properties of operations to add and subtract.

STANDARD CODE	STANDARD
MAFS.2.NBT.2.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *Cognitive Complexity:* Level 1: Recall
MAFS.2.NBT.2.6	Add up to four two-digit numbers using strategies based on place value and properties of operations. *Cognitive Complexity:* Level 1: Recall
MAFS.2.NBT.2.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts

STANDARD CODE	STANDARD
MAFS.2.NBT.2.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. *Cognitive Complexity:* Level 1: Recall
MAFS.2.NBT.2.9	Explain why addition and subtraction strategies work, using place value and the properties of operations. *Cognitive Complexity:* Level 3: Strategic Thinking & Complex Reasoning

Domain: MEASUREMENT AND DATA

Cluster 1: Measure and estimate lengths in standard units.

STANDARD CODE	STANDARD
MAFS.2.MD.1.1	Measure the length of an object to the nearest inch, foot, centimeter, or meter by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts
MAFS.2.MD.1.2	Describe the inverse relationship between the size of a unit and number of units needed to measure a given object. *Example: Suppose the perimeter of a room is lined with one-foot rulers. Now, suppose we want to line it with yardsticks instead of rulers. Will we need more or fewer yardsticks than rulers to do the job? Explain your answer.* *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts
MAFS.2.MD.1.3	Estimate lengths using units of inches, feet, yards, centimeters, and meters. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts
MAFS.2.MD.1.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts

STANDARD CODE	STANDARD
Cluster 2: Relate addition and subtraction to length.	
STANDARD CODE	**STANDARD**
MAFS.2.MD.2.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts
MAFS.2.MD.2.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts

Cluster 3: Work with time and money.

STANDARD CODE	**STANDARD**
MAFS.2.MD.3.7	Tell and write time from analog and digital clocks to the nearest five minutes. *Cognitive Complexity:* Level 1: Recall

MAFS.2.MD.3.8	Solve one- and two-step word problems involving dollar bills (singles, fives, tens, twenties, and hundreds) or coins (quarters, dimes, nickels, and pennies) using $ and ¢ symbols appropriately. Word problems may involve addition, subtraction, and equal groups situations[1]. *Example: The cash register shows that the total for your purchase is 59¢. You gave the cashier three quarters. How much change should you receive from the cashier?* a. Identify the value of coins and paper currency. b. Compute the value of any combination of coins within one dollar. c. Compute the value of any combinations of dollars (e.g., If you have three ten-dollar bills, one five-dollar bill, and two one-dollar bills, how much money do you have?). d. Relate the value of pennies, nickels, dimes, and quarters to other coins and to the dollar (e.g., There are five nickels in one quarter. There are two nickels in one dime. There are two and a half dimes in one quarter. There are twenty nickels in one dollar). ([1]See glossary Table 1) *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts

Cluster 4: Represent and interpret data. (Major Cluster)

Don't sort clusters from Major to Supporting, and then teach them in that order. To do so would strip the coherence of the mathematical ideas and miss the opportunity to enhance the major work of the grade with the supporting clusters.

STANDARD CODE	STANDARD
MAFS.2.MD.4.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts

MAFS.2.MD.4.9	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts

Domain: GEOMETRY

Cluster 1: Reason with shapes and their attributes. (Supporting Cluster)

Don't sort clusters from Major to Supporting, and then teach them in that order. To do so would strip the coherence of the mathematical ideas and miss the opportunity to enhance the major work of the grade with the supporting clusters.

STANDARD CODE	STANDARD
MAFS.2.G.1.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. *Cognitive Complexity:* Level 1: Recall
MAFS.2.G.1.2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. *Cognitive Complexity:* Level 1: Recall

MAFS.2.G.1.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves, thirds, half of, a third of,* etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. *Cognitive Complexity:* Level 1: Recall