2nd Grade Curriculum Guide – 2022-2023

2nd Grade BIG-M Transition Guide

Mathematical Thinking and Reasoning Standards

Key:

*Time frame Includes two days for assessment.

Yellow highlight: New grade level content benchmark

Blue highlight: Materials to be pulled from 4th grade

(FD) Foundational Benchmark Exploration (E), Procedural Reliability (PR), Procedural Fluency (PF), Recall/Automaticity (R)

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.AR.3.1 MA.2.NSO.1.1 MA.2.NSO.1.3 MA.2.NSO.2.3 MA.2.AR.1.1 MA.2.AR.3.2*	**Operations and Algebraic Thinking** **Addition Concepts – Go Math! Ch.1** • Classify numbers to 20 as even or odd and write equations using two equal groups or two equal addends. • Write expressions with equal addends to represent even numbers. • Write an expression to express an odd number as a sum of two equal addends plus one more • Apply a variety of methods application including using the inverse relationship of addition and subtraction to find sums and differences for basic facts focusing on helping students choose a method they can use reliability. • Write two-digit numbers in expanded form, standard form, and word form. • Apply place value concepts to find equivalent representations of numbers.		13 days

Literature Resources:	***Manipulatives:***
• Even Steven/Odd Todd *by Kathryn Christaldi* • How Much is a Million *by David M. Schwartz* • 100 Hungry Ants *by Elinor J. Pinczes* • A Place for Zero *by Angelina Sparagna LoPresti* • If You Were an Even Number *by Marci Aboff* • One Odd Day *by Doris Fisher* • My Even Day *by Doris Fisher*	• Ten-frames • Double ten-frames • Hundred chart • Dot cards • Number lines to 20 • Connecting cubes • Two-color counters • Place value chart • Base-ten blocks • Objects for counting (e.g., beans, chips, coins)

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.NSO.1.1 MA.2.NSO.1.2 MA.NSO.1.3 MA.2.NSO.2.2 MA.2.NSO.2.4 MA.2.AR.1.1	**Numbers to 1,000 (Go Math! Ch. 2)** • Understand that multiples of 100 are multiples of groups of 10 tens. • Write three-digit numbers in standard form, expanded form, and word form. • Use concrete and pictorial models to represent three-digit numbers. • Describe three-digit numbers using place value concepts and find equivalent • representations of three-digit numbers. • Find 10 more or 10 less than a given 3-digit number; find 100 more or 100 less than a • given 3-digit number. • Plot, order, and compare two 3-digit numbers using place value and a number line as well as symbols (>, =, <) and the terms (less than, greater than, between, or equal to).	2.1, 2.2	15 DAYS

Literature Resources:	***Manipulatives:***
• Even Steven/Odd Todd *by Kathryn Christaldi* • How Much is a Million *by David M. Schwartz* • 100 Hungry Ants *by Elinor J. Pinczes* • A Place for Zero *by Angelina Sparagna LoPresti* • If You Were an Even Number *by Marci Aboff* • One Odd Day *by Doris Fisher* • My Even Day *by Doris Fisher*	• Ten-frames • Double ten-frames • Hundred chart • Dot cards • Number lines to 20 • Connecting cubes • Two-color counters • Place value chart • Base-ten blocks • Objects for counting (e.g., beans, chips, coins)

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.NSO.2.1 MA.2.NSO.2.3 MA.2.NSO.2.4 MA.2.AR.1.1 MA.2.AR.2.2 MA.2.AR.3.1 MA.2.AR.3.2	**Operations and Algebraic Thinking** **Addition Concepts – (Go Math! Ch. 3)** • Apply a variety of methods application including using the inverse relationship of addition and subtraction to find sums and differences for basic facts focusing on helping students choose a method they can use reliability. • Recall sums and related subtraction facts using properties and methods including make a ten. • Determine the unknown whole number in an equation relating to three or four whole numbers focusing on the understanding of the equal sign. • Determine if the equation is true or false by using comparative relationship thinking. • • Use various representations of addition and subtraction situations, including equations with a symbol for the unknown number • Solve problems involving equal groups and write equations using repeated addition to find the total number of objects in arrays.		15 Days

Literature Resources:

- Even Steven/Odd Todd *by Kathryn Christaldi*
- How Much is a Million *by David M. Schwartz*
- 100 Hungry Ants *by Elinor J. Pinczes*
- A Place for Zero *by Angelina Sparagna LoPresti*
- If You Were an Even Number *by Marci Aboff*
- One Odd Day *by Doris Fisher*
- My Even Day *by Doris Fisher*

Manipulatives:

- Ten-frames
- Double ten-frames
- Hundred chart
- Dot cards
- Number lines to 20
- Connecting cubes
- Two-color counters
- Place value chart
- Base-ten blocks
- Objects for counting (e.g., beans, chips, coins

Note:

- **The following lessons are addressed in previous chapters, and can be used as extra practice or for brain check: 3.1, 3.2**
- **It is best to progress into multiplication after this section, because students have solved problems involving equal groups, repeated addition, and arrays.**

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.AR.3.1 MA.2.AR.3.2	**NEW TO 2ND GRADE: Multiplication: Grade 3 (Go Math! Ch.3-4)** ***Please provide these lessons as a part of your instruction*** • Model and skip count objects in equal groups to find how many there are. • Making the connection of recognizing even and odd numbers using skip counting, arrays, and pattern in the ones place. • Making connection between arrays and repeated addition, which builds foundation for multiplication. • Write an addition sentence and a multiplication sentence for a model.		20 days

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.NSO.2.3 MA.2.NSO.1.2 MA.2.NSO.1.4 MA.2.NSO.2.4 MA.2.AR.1.1 MA.2.AR.2.1 MA.2.AR.2.2	**Addition and Subtraction Two-Digit Addition *(Go Math! Ch. 4)*** • Apply methods including *break apart* to find sums of two 2-digit numbers. • Compose and decompose 2-digit numbers in multiple ways using hundreds, tens, and ones. • Find sums of two 2-digit numbers, with and without regrouping using methods based • on place value and properties of operations including using a number line. • Use the strategy *draw a diagram* to solve multistep problems. • Use various representations of 2-digit addition situations, including equations with a symbol for the unknown number.	4.8	13 Days
Literature Resources • Cam Jansen: The Mystery of the Carnival Prize *by David A. Adler* • *Divide or Ride *by Stuart J. Murphy* • *Domino Addition *by Lynette Long* • *Chrysanthemum *by Kevin Henkes* • If You Were a Plus Sign *by Trisha Speed Shaskan* • Animals on Board *by Stuart J. Murphy* • Sea Sums *by Joy N. Hulme* • Dealing with Addition *by Lynette Long* • Elevator Magic, Level *by Stuart*		***Manipulatives:*** • Base-ten blocks • Ten-frames • Double ten-frames • Hundred chart • Dot cards • Number lines to 20 • Open number line • Two-color counters • Part-Part whole chart • Place Value Chart • Number cubes	

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.AR.1.1 MA.2.NSO.2.3 MA.2.AR.2.1 MA.2.AR.2.2 MA.2.NSO.2.4	**Two-Digit Subtraction** *(Go Math! Ch. 5)* Use various representations of 2-digit subtraction situations, cluding equations with a symbol for the unknown number. Break apart a 1 or 2–digit subtrahend to subtract it from a 2-git number. Analyze word problems to determine what operation to use to olve multistep problems. Determine and explain whether equations involving subtraction re true or false.	**5.7**	13 days

Literature Resources:	***Manipulatives:***
• Cam Jansen: The Mystery of the Carnival Prize *by David A. Adler* • *Divide or Ride *by Stuart J. Murphy* • *Domino Addition *by Lynette Long* • *Chrysanthemum *by Kevin Henkes* • If You Were a Plus Sign *by Trisha Speed Shaskan* • Animals on Board *by Stuart J. Murphy* • Sea Sums *by Joy N. Hulme* • Dealing with Addition *by Lynette Long* • Elevator Magic, Level *by Stuart*	• Base-ten blocks • Ten-frames • Double ten-frames • Hundred chart • Dot cards • Number lines to 20 • Open number line • Two-color counters • Part-Part whole chart • Place Value Chart • Number cubes • Spinners

Notes:

- **The following lessons are taught in previous chapters (chapter 2 focuses on composition numbers, and chapter 3 focuses on number bond and decomposing numbers), and can be used as extra practice or for brain check: 5.1, and 5.2**
- **Students are not limited to using the strategy presented in lesson 5.3**

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.NSO.2.4 MA.2.NSO.1.2 MA.2.NSO.1.4	**Three-Digit Addition and Subtraction** *(Go Math! Ch. 6)* • Use concrete and pictorial representations to add and subtract 3-digit numbers. • Apply place value methods including *break apart* for three-digit addition. • Understand that rounding is a process that produces a number with a similar value that is less precise but easier to use. • Use a variety of methods including a number line to find sums and differences of 3-digit numbers, with and without regrouping.		10 days
Literature Resources: • Cam Jansen: The Mystery of the Carnival Prize *by David A. Adler* • *Divide or Ride *by Stuart J. Murphy* • *Domino Addition *by Lynette Long* • *Chrysanthemum *by Kevin Henkes* • If You Were a Plus Sign *by Trisha Speed Shaskan* • Animals on Board *by Stuart J. Murphy* • Sea Sums *by Joy N. Hulme* • Dealing with Addition *by Lynette Long* • Elevator Magic, Level *by Stuart*		***Manipulatives:*** • Base-ten blocks • Ten-frames • Double ten-frames • Hundred chart • Dot cards • Number lines to 20 • Open number line • Two-color counters • Part-Part whole chart • Place Value Chart • Number cubes • Spinners	
• **The following lessons are addressed in previous chapters, and can be used as extra practice or for brain check: 6.1, 6.2, 6.3, 6.4, and 6.5**			

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.M.2.1 MA.2.M.2.2	**Measurement and Data Money and Time *(Go Math! Ch. 7)*** • Read and write times to the nearest five minutes shown on analog and digital clocks, • Including labeling times as a.m and p.m. • Express portions of an hour using the fractional terms half an hour, half past, quarter of an hour, quarter after and quarter till. • Connect telling time to the partitioning of circles and to a number line. • Find the total values of collections of dimes, nickels, and pennies. • Show one dollar in a variety of ways, and represent money amount less than and greater than a dollar using 2 different combinations of coins. • Order coins in a collection by value and then find the total value. • Solve word problems involving dollar bills with $100 or coins within 100 cents.		16 day

Literature Resources	***Manipulatives***
• Alexander Who Used to Be Rich Last Sunday *by Judith Viorst* • Pigs Will Be Pigs *by Amy Axel Rol* • *The Grouchy Ladybug *by Eric Carle* • Telling Time with Big Mama Cat *by Dan Harper* • A Quarter from the Tooth Fairy *by Caren Holtman* • A Chair for My Mother *by Vera Williams* • One cent, Two cents, Old cent, New cents *by Bonnie Worth* • A Dollar for Penny *by Julie Glass* • The Penny Pot *by Lynne Avril*	• Analog clocks • Open number lines • Dollar bills, coins (penny, nickel, • dime, quarter) • Connecting cubes

Notes:

- **Students should be provided with the following manipulatives to learn about time and money throughout this chapter:** Analog clocks, Open number lines, Dollar bills, and coins (penny, nickel, dime, quarter).
- **Review unit vocabulary, and the value of each coin prior to teaching your daily math lesson.**

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.AR.1.1 MA.2.M.1.1 MA.2.M.1.2 MA.2.M.1.3 MA.2.DP.1.1	**Length in Customary Units *(Go Math! Ch. 8)*** • Estimate and measure in inches, feet, and yards. • Solve one addition and subtraction problems involving lengths, using diagrams and equations with a symbol for the unknown number. • Solving problems that may include creating real-world situations based on equations. • Recognize the inverse relationship between the size and the number of units needed to measure a given length. • See rulers and tape measures as number lines. • Measure the lengths of objects and make a line plot to display the data. • Measure the lengths of two objects using the same unit (inches, feet, or yards) and determine the difference between their measurements.		13 days
Literature Resources: • *How Long or How Wide *by Brian P. Cleary* • *Me and the Measure of Things *by Joan Sweeney* • *How Big is a Foot? *by Rolf Myller* • Inch by Inch *by Leo Lionni* • Measuring Penny *by Loreen Leedy*		***Manipulatives:*** • Measurement tools (e.g., rulers, yard sticks, meter sticks, measuring tapes) • Number lines	

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.M.1.1 MA.2.M.1.3 MA.2.M.1.2 MA.2.AR.1.1	**Length in Metric Units *(Go Math! Ch. 9)*** • Use concrete models and the appropriate tools to measure lengths in centimeters and meters. • See rulers and tape measures as number lines. • Estimate lengths in centimeters and in meters. • Use the strategy *draw a diagram* to solve problems involving adding and subtracting lengths. • Solve addition and subtraction problems involving lengths, using number line diagrams and equations with a symbol for the unknown number. • Recognize the inverse relationship between the size and the number of units needed to measure a given length. • Measure and then find the difference in the lengths of two objects.		13 days

Literature Resources:	***Manipulatives:***
• *How Long or How Wide *by Brian P. Cleary* • *Me and the Measure of Things *by Joan Sweeney* • *How Big is a Foot? *by Rolf Myller* • Inch by Inch *by Leo Lionni* • Measuring Penny *by Loreen Leedy*	• Measurement tools (e.g., rulers, yard sticks, meter sticks, measuring tapes) • Number lines

Note:

- It is important for your students to know that **Meter is a greater unit than Centimeter**
- It is important for your students to understand that **1 meter = 100 centimeters**. Provide simple practice problems to convert from meter to centimeter as a part of your daily number talk.

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.1.NSO.1.1 **MA.2.DP .1.1** **MA.2.DP .1.2**	**Data *(Go Math! Ch.10)*** • Collect and record data in tally charts. • Interpret data in picture graphs and bar graphs to solve problems. • Display data in picture graphs and in bar graphs using scales of ones, fives or tens. • Recognize the inverse relationship between the size and the number of units needed to measure a given length.		11 days
Literature Resources: • Tally O'Malley *by Stuart J. Murphy* • Lemonade for Sale *by Tricia Tusa* • * Six-Dinner Sid *by Inga Moore* • Great Graph Contest *by Loreen Leedy* • Tally Cat Keeps Track *by Trudy Harris* • The Best Vacation Ever *by Stuart J.* Murphy		***Manipulatives:*** • Connecting cubes and square color tiles to create graphs • Number lines • Graph paper	

Benchmark (s)	Learning Targets	NOT Aligned Go Math! Lessons	Suggested Time Frame (Include 2 days of assessments
MA.2.GR.1.1 MA.2.GR.1.2 MA.2.FR.1.1 MA.2.FR.1.2* MA.2.GR.2.1 MA.2.GR.2.2 MA.2.GR.1.3	**Geometry and Fractions Concepts** *(2nd grade Go Math! Ch. 11)* ***NEW TO THE GRADE LEVEL: (3rd grade Go Math! Ch.11, & 12.3 - 12.6)*** ***Please provide these lessons as a part of your instruction.*** • Identify, describe, and draw two-dimensional shapes including octagons, based on the defining attributes of the shapes. • Identify, describe, and partition circles and rectangles with equal parts that show halves, thirds, or fourths. • Explore perimeter and find the perimeter of a polygon with whole number side lengths. • Identify line(s) of symmetry for a two-dimensional figure.		13 days
Literature Resources: • *The Greedy Triangle *by Marilyn Burns* • Give Me Half *by Stuart J. Murphy* • *Fraction Action *by Loreen Leedy* • If You Were a Polygon *by Marcie Aboff* • Icky Bug Shapes *by Jerry Pallotta*		***Manipulatives:*** • Three-dimensional objects • Attribute blocks • Pattern blocks • Tangrams • Geoboards and Geobands (rubber bands) • Variety of cut-out shapes	