GRADE 2 MATH

2

EUREKA SCOPE AND SEQUENCE CHART

Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7	Module 8
Sums and Differences to 100	Addition and Subtraction of Length Units	Place Value, Counting, and Comparison of Numbers to 1,000	Addition and Subtraction Within 200 with Word Problems to 100	Addition and Subtraction Within 1,000 with Word Problems to 100	Foundations of Multiplication and Division	Problem Solving with Length, Money, and Data	Time, Shapes, and Fractions as Equal Parts of Shapes
Approximately 2 Weeks	Approximately 2 Weeks	Approximately 4 Weeks	Approximately 8 Weeks	Approximately 6 Weeks	Approximately 5 Weeks	Approximately 5 Weeks	Approximately 4 Weeks
MGSE2.OA.1*	MGSE2.MD.1*	MGSE2.NBT.1*	MGSE2.OA.1*	MGSE2.NBT.7*	MGSE2.OA.3*	MGSE2.NBT.5	MGSE2.MD.7*
MGSE2.OA.2*	MGSE2.MD.2*	MGSE2.NBT.2	MGSE2.NBT.5*	MGSE2.NBT.8	MGSE2.OA.4*	MGSE2.MD.1*	MGSE2.G.1*
MGSE2.NBT.5*	MGSE2.MD.3	MGSE2.NBT.3	MGSE2.NBT.6*	MGSE2.NBT.9*	MGSE2.G.2	MGSE2.MD.2*	MGSE2.G.3*
	MGSE2.MD.4*	MGSE2.NBT.4*	MGSE2.NBT.7*			MGSE2.MD.3	
	MGSE2.MD.5*		MGSE2.NBT.8			MGSE2.MD.4*	
	MGSE2.MD.6*		MGSE2.NBT.9*			MGSE2.MD.5*	
						MGSE2.MD.6*	
						MGSE2.MD.8	
						MGSE2.MD.9*	
						MGSE2.MD.10	

Grades K-2 Key: CC = Counting and Cardinality, G= Geometry, MD=Measurement and Data, NBT= Number and Operations in Base Ten, OA = Operations and Algebraic Thinking

Standards in dark green reflect material where time can be consolidated by simultaneous instructional opportunities throughout the course. Address these standards by incorporating them into the contextual opportunities throughout the course.

*Prioritized Standards: Grade level standards of highest priority have been identified. Pacing has been modified to allow sufficient time for in-depth instruction and practice.

Module Name	Module Description	Georgia Standards of Excellence	Module Duration
Module 1 **Sums and Differences to 100**	**In this module, students will be able to:** **Topic A:** Foundations for Fluency with Sums and Differences Within 100 **Topic B:** Initiating Fluency with Addition and Subtraction Within 100	**Represent and solve problems involving addition and subtraction.** **MGSE2.OA.1** Use addition and subtraction within 100 to solve one and two step word problems by using drawings and equations with a symbol for the unknown number to represent the problem. Problems include contexts that involve adding to, taking from, putting together/taking apart (part/part/whole) and comparing with unknowns in all positions. **Add and subtract within 20.** **MGSE2.OA.2** Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. **Use place value understanding and properties of operations to add and subtract.** **MGSE2.NBT.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	**Approximately 2 Weeks**

Module 2 **Addition and Subtraction of Length Units**	**In this module, students will be able to:** **Topic A:** Understand Concepts About the Ruler **Topic B:** Measure and Estimate Length Using Different Measurement Tools **Topic C:** Measure and Compare Lengths Using Different Length Units **Topic D:** Relate Addition and Subtraction to Length	**Measure and estimate lengths in standard units.** **MGSE2.MD.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. **MGSE2.MD.2** Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. **MGSE2.MD.3** Estimate lengths using units of inches, feet, centimeters, and meters. Integrate lessons and practice on comparing and estimating lengths (2.MD.A.2, 3, and 4) into the work of measuring length with tools (2.MD.A.1) in order to reduce the amount of time spent on this cluster. **MGSE.2.MD.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. **Relate addition and subtraction to length.** **MGSE2.MD.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.	**Approximately 2 Weeks**

		MGSE2.MD.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.	

Module 3
 	
Place Value, Counting and Comparison of Numbers to 1,000
	In this module students will be able to:
	
	Topic A: Forming Base Ten Units of Ten, a Hundred, and a Thousand
	
	Topic B: Understanding Place Value Units of One, Ten, and a Hundred
	
	Topic C: Three-Digit Numbers in Unit, Standard, Expanded, and Word Forms
	
	Topic D: Modeling Base Ten Numbers Within 1,000 with Money
	
	Topic E: Modeling Numbers Within 1,000 with Place Value Disks
	
	Topic F: Comparing Two Three-Digit Numbers
	
	Topic G: Finding 1, 10, and 100 More or Less Than a Number
		<u>Understand place value.</u>
		
		MGSE2.NBT.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).
		
		MGSE2.NBT.2 Count within 1000; skip count by 5s, 10s, and 100s.
		
		MGSE2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
			Approximately 4 Weeks

		Emphasize the conceptual understanding of three-digit numbers (as detailed in 2.NBT.A.1). Integrate lessons and practice on counting, reading/writing, and comparing numbers (2.NBT.A.2, 3, and 4) into the work of place value. Limit the amount of required student practice on counting by ones, reading/writing, and comparing numbers. **MGSE2.NBT.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.	
Module 4 **Addition and Subtraction Within 200 with Word Problems to 100**	**In this module students will be able to:** **Topic A:** Sums and Differences Within 100 **Topic B:** Strategies for Composing a Ten **Topic C:** Strategies for Decomposing a Ten **Topic D:** Strategies for Composing Tens and Hundreds **Topic E:** Strategies for Decomposing Tens and Hundreds	**Represent and solve problems involving addition and subtraction.** **MGSE2.OA.1** Use addition and subtraction within 100 to solve one and two step word problems by using drawings and equations with a symbol for the unknown number to represent the problem. Problems include contexts that involve adding to, taking from, putting together/taking apart (part/part/whole) and comparing with unknowns in all positions.	**Approximately 8 Weeks**

| Topic F: Student Explanations of Written Methods | **Use place value understanding and properties of operations to add and subtract.**

MGSE2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction

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

MGSE2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.

MGSE2.NBT.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.

MGSE2.NBT.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

MGSE2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. | |

Module 5 **Addition and Subtraction Within 1,000 With Word Problems to 100**	**In this module students will be able to:** **Topic A:** Strategies for Adding and Subtracting Within 1,000 **Topic B:** Strategies for Composing Tens and Hundreds Within 1,000 **Topic C:** Strategies for Decomposing Tens and Hundreds Within 1,000 **Topic D:** Student Explanations for Choice of Solution Methods	**Use place value understanding and properties of operations to add and subtract.** **MGSE2.NBT.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. **MGSE2.NBT.8** Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. **MGSE2.NBT.9** Explain why addition and subtraction strategies work, using place value and the properties of operations.	**Approximately 6 Weeks**
Module 6 **Foundations of Multiplication and Division**	**In this Module students will be able to:** **Topic A:** Formation of Equal Groups **Topic B:** Arrays and Equal Groups **Topic C:** Rectangular Arrays as a Foundation for Multiplication and Division **Topic D:** The Meaning of Even and Odd Numbers	**Work with equal groups of objects to gain foundations for multiplication.** **MGSE2.OA.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. **MGSE2.OA.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.	**Approximately 5 Weeks**

		Reason with shapes and their attributes. **MGSE2.G.2** Partition a rectangle into rows and columns of same-size squares to find the total number of them.	
Module 7 **Problem Solving with Length, Money and Data**	**In this module students will be able to:** **Topic A:** Problem Solving with Categorical Data **Topic B:** Problem Solving with Coins and Bills **Topic C:** Creating an Inch Ruler **Topic D:** Measuring and Estimating Length Using Customary and Metric Units **Topic E:** Problem Solving with Customary and Metric Units **Topic F:** Displaying Measurement Data	**Use place value understanding and properties of operations to add and subtract.** **MGSE2.NBT.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. **Measure and estimate lengths in standard units.** **MGSE2.MD.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. **MGSE2.MD.2** Measure the length of an object twice, using length units of different measurements; describe how the two measurements relate to the size of the unit chosen. Understand the relative size of units in different systems of measurement. *For example, an inch is longer than a centimeter.* (Students are not expected to convert between systems of measurement.)	**Approximately 5 Weeks**

		MGSE2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters. Integrate lessons and practice on comparing and estimating lengths (2.MD.A.2, 3, and 4) into the work of measuring length with tools (2.MD.A.1) in order to reduce the amount of time spent on this cluster. **MGSE2.MD.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. **Relate addition and subtraction to length.** **MGSE2.MD.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. **MGSE2.MD.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. **Work with time and money.** **MGSE2.MD.8** Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $	

and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?

Combine lessons in order to reduce the amount of time spent on time and money. Emphasize denominations that support place value understanding such as penny-dime-dollar. Limit the amount of required student practice.

Represent and interpret data.

MGSE2.MD.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.

MGSE2.MD.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 problems6 using information presented in a bar graph.

Eliminate lessons on generating measurement data (2.MD.D.9) and creating picture/bar graphs (2.MD.D.10).
Integrate data displays only as settings for addition/subtraction word problems (2.OA.A).

| Module 8

Time, Shapes and Fractions as Equal Parts of Shapes | **In this module students will be able to:**

Topic A: Attributes of Geometric Shapes

Topic B: Composite Shapes and Fraction Concepts

Topic C: Halves, Thirds, and Fourths of Circles and Rectangles

Topic D: Application of Fractions to Tell Time | **Work with time and money.**

MGSE2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Reason with shapes and their attributes.

MGSE2.G.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.

MGSE2.G.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. | **Approximately 4 Weeks** |