Georgia Standards of Excellence
2.2 Curriculum Map

Georgia Standards of Excellence: Curriculum Map						
2nd Grade Unit 4	2nd Grade Unit 5	2nd Grade Unit 6	3rd Grade Unit 1	3rd Grade Unit 2	3rd Grade Unit 3	
Applying Base Ten Understanding	**Understanding Plane and Solid Figures**	**Developing Multiplication**	**Numbers and Operations in Base Ten**	**The Relationship Between Multiplication and Division**	**Patterns in Addition and Multiplication**	**Show What We Know**
5-6 weeks	**5-6 weeks**	**5-6 weeks**	**5 - 6 weeks**	**5 - 6 weeks**	**5 - 6 weeks**	**Up to 4 weeks**
MGSE2.NBT.6 **MGSE2.NBT.7** **MGSE2.NBT.8** **MGSE2.NBT.9** **MGSE2.MD.8** **MGSE2.MD.10**	**MGSE2.G.1** **MGSE2.G.2** **MGSE2.G.3** **MGSE2.MD.10**	**MGSE2.OA.3** **MGSE2.OA.4** **MGSE2.MD.10**	**MGSE3.NBT.1** **MGSE3.NBT.2** **MGSE3.MD.3**	**MGSE3.OA.1** **MGSE3.OA.2** **MGSE3.OA.3** **MGSE3.OA.4** **MGSE3.OA.5** **MGSE3.OA.6** **MGSE3.OA.7** **MGSE3.NBT.3** **MGSE3.MD.3**	**MGSE3.OA.8** **MGSE3.OA.9** **MGSE3.MD.3** **MGSE3.MD.4** **MGSE3.MD.5** **MGSE3.MD.6** **MGSE3.MD.7**	**ALL**
These units were written to build upon concepts from prior units, so later units contain tasks that depend upon the concepts addressed in earlier units. All units will include the Mathematical Practices and indicate skills to maintain. *Prioritized Standards are noted in RED*						

NOTE: Mathematical standards are interwoven and should be addressed throughout the year in as many different units and tasks as possible in order to stress the natural connections that exist among mathematical topics.

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.

For the 2020-2021 school year, please review the learning recovery guidance document in order to plan for initial instruction that may be impacted by the remote learning period. The document can be found here.

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Standards for Mathematical Practice			
1 Make sense of problems and persevere in solving them. **2** Reason abstractly and quantitatively. **3** Construct viable arguments and critique the reasoning of others. **4** Model with mathematics.		**5** Use appropriate tools strategically. **6** Attend to precision. **7** Look for and make use of structure. **8** Look for and express regularity in repeated reasoning.	
2nd Unit 4	**2nd Unit 5**	**2nd Unit 6**	**3rd Unit 1**
Applying Base Ten Understanding	**Understanding Plane and Solid Figures**	**Developing Multiplication**	**Numbers and Operations in Base Ten**
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.[1] **Measure and estimate lengths in standard units.** **MGSE2.MD.8** Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols	**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.[3] Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. **MGSE2.G.2** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. **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 **Represent and interpret data** **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 problems[4] using information presented in a bar graph.	**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. **Represent and interpret data** **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 problems[5] using information presented in a bar graph.	**Use place value understanding and properties of operations to perform multi-digit arithmetic.** **MGSE3.NBT.1** Use place value understanding to round whole numbers to the nearest 10 or 100. **MGSE3.1.NBT.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. **Represent and interpret data.** **MGSE3.MD.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.

[1] Explanations may be supported by drawings or objects.

[3] Sizes are compared directly or visually, not compared by measuring.

[4] See Glossary, Table 1.

[5] See Glossary, Table 1.

appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have? **Represent and interpret data** **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 problems[2] using information presented in a bar graph.			

[2] See Glossary, Table 1.

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3rd Unit 2	3rd Unit 3	
Operations and Algebraic Thinking: the Relationship Between Multiplication and Division	**Operations and Algebraic Thinking: Patterns in Addition and Multiplication**	**Show What We Know**
Represent and solve problems involving multiplication and division. **MGSE3.OA.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 a context in which a total number of objects can be expressed as 5 × 7. **MGSE3.OA.2** Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares (How many in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each (How many groups can you make?). *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.* **MGSE3.OA.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.6 *See Glossary: Multiplication and Division Within 100.* **MGSE3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division. For example, determine the unknown number that makes the equation true in each of the equations, 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?. **Understand properties of multiplication and the relationship between multiplication and division.**	**Solve problems involving the four operations, and identify and explain patterns in arithmetic.** **MGSE3.OA.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.8 **MGSE3.OA.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. *See Glossary Table 3* **Represent and interpret data.** **MGSE3.MD.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. **MGSE3.MD.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. **Geometric Measurement: understand concepts of area and relate area to multiplication and to addition.** **MGSE3.MD.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.	**ALL**

[6] See Glossary, Table 2.

[8] This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order where there are no parentheses to specify a particular order (Order of Operations).

MGSE3.OA.5 Apply properties of operations as strategies to multiply and divide.7 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.) **MGSE3.OA.6** Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8. Multiply and divide within 100 **MGSE3.OA.7** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. **MGSE3.NBT.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. **Represent and interpret data.** **MGSE3.MD.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.	a. 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. b. 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. **MGSE3.MD.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). **MGSE3.MD.7** Relate area to the operations of multiplication and addition. **a.** 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. **b.** 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. **c.** 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 × b and a × c. Use area models to represent the distributive property in mathematical reasoning.	

[7] Students need not use formal terms for these properties.