Welcome to Second Grade Mathematics!

Our journey through the NC revised 2nd Grade Mathematics Standard Course of Study will include:

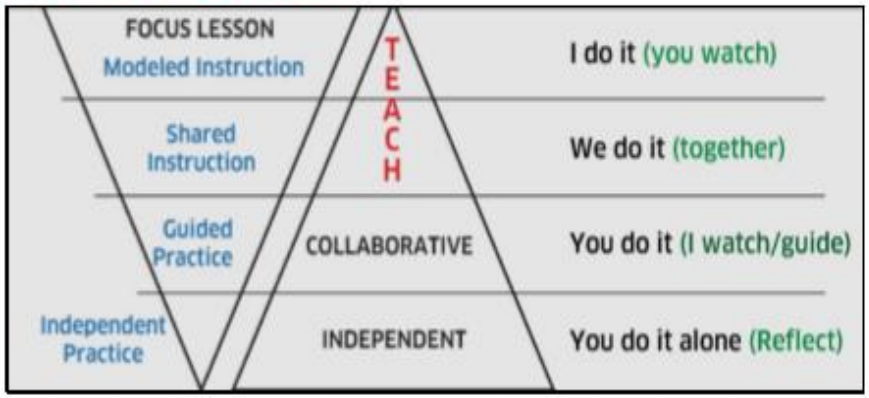
1. The planning of lessons that are organized by "themes": Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, and Geometry.
2. Eight Mathematical Practices which are the behaviors (or habits of mind) that are developed to achieve mathematical proficiency throughout the kindergarten school year.
3. All students must be able to conceptualize math concepts, follow procedural algorithms and apply essential understanding in the context of the learning; therefore, teachers are asked to consider the learners when selecting an approach to close academic gaps. The implementation of the required "**I Do; We Do; You Do**" (gradual release) instructional approach shown in "Figure 1/Link" ensures academic clarity in the processing of new content. The modeling of concepts systematically & explicitly using Figures 2 as well.

   Figure 2/Link:
   Concrete → Representational → Abstract Modeling Method

Road to Mastery includes the following:

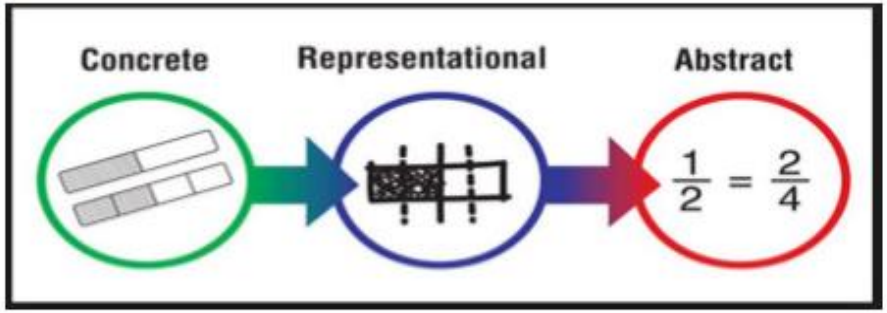
- Follow the 2nd Grade Math Pacing Guide
  (**Note**: **Number** means quarter taught; **X** means quarter NOT taught; **P** means *performed* routinely in teacher-led small groups)
- Instructional block consists of daily 60 to 90 minutes
- Teacher clusters math standards to create 2-week units to maximize learning and accomplish the teaching of all standards
- Lesson plan includes daily whole group & small group instruction
- Appropriate hands-on manipulatives are utilized during guided practice
- Student engagement includes intellectually independent & collaborative computation & problem-solving tasks
- Data-driven remediation plan includes scaffolding of content; direct instruction & anchor chart(s); use of other supplemental intervention resources
- Daily 2-minute drills in building fluent retrieval of basic math facts
- Conduct formative bi-weekly unit assessments: quiz, tests, observe
- Review as needed for summative K-2 benchmark assessments

Figure 1: I Do; We Do; You Do Instructional Approach



Link: https://strategiesforspecialinterventions.weebly.com/i-do-we-do-you-do.html

Figure 2: Modeling Method: Concrete to Representational to Abstract



Link: http://fcit.usf.edu/mathvids/strategies/category.html#teacher

Best regards for a successful school year!
"Charting a New Course"
Halifax County Schools
2019-2020 Curriculum Support Team

Halifax County Schools: Math Pacing Guide	August 2019			
2nd Grade At-a-Glance				
Operations and Algebraic Thinking	**Quarters**			
Represent and solve problems	**1**	**2**	**3**	**4**
NC.2.OA.1 Represent and solve addition and subtraction word problems, within 100, with unknowns in all positions, by using representations and equations with a symbol for the unknown number to represent the problem, when solving: • One-Step problems***: (2nd quarter)*** o Add to/Take from-Start Unknown o Compare-Bigger Unknown o Compare-Smaller Unknown • Two-Step problems involving single digits: **(3rd quarter)** o Add to/Take from- Change Unknown o Add to/Take From- Result Unknown	X	2	3	P
Add and subtract within 20.	**1**	**2**	**3**	**4**
NC.2.OA.2 Demonstrate fluency with addition and subtraction, within 20, using mental strategies	**1**	**P**	**P**	**P**
Work with equal groups.	**1**	**2**	**3**	**4**
NC.2.OA.3 Determine whether a group of objects, within 20, has an odd or even number of members by: • Pairing objects, then counting them by 2s. • Determining whether objects can be placed into two equal groups. • Writing an equation to express an even number as a sum of two equal addends.	**1**	**P**	**P**	**P**
NC.2.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.	**1**	**P**	**P**	**P**
Number and Operations in Base Ten	**Quarters**			
Understand place value.	**1**	**2**	**3**	**4**
NC.2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones. • Unitize by making a hundred from a collection of ten tens. • Demonstrate that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds, with 0 tens and 0 ones. • Compose and decompose numbers using various groupings of hundreds, tens, and ones.	**1**	**P**	**P**	**P**
NC.2.NBT.2 Count within 1,000; skip-count by 5s, 10s, and 100s.	**1**	**P**	**P**	**P**
NC.2.NBT.3 Read and write numbers, within 1,000, using base-ten numerals, number names, and expanded form.	**1**	**P**	**P**	**P**
NC.2.NBT.4 Compare two three-digit numbers based on the value of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	X	2	P	P
Use place value understanding and properties of operations	**Quarters**			
NC.2.NBT.5 Demonstrate fluency with addition and subtraction, within 100, by: • Flexibly using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. • Comparing addition and subtraction strategies, and explaining why they work. • Selecting an appropriate strategy in order to efficiently compute sums and differences.	X	2	P	P

Halifax County Schools: Math Pacing Guide August 2019				
2nd Grade At-a-Glance	**Quarters**			
NC.2.NBT.6 Add up to three two-digit numbers using strategies based on place value and properties of operations.	**X**	**X**	**3**	**P**
NC.2.NBT.7 Add and subtract, within 1,000, relating the strategy to a written method, using: • Concrete models or drawings • Strategies based on place value • Properties of operations • Relationship between addition and subtraction	**X**	**X**	**3**	**P**
NC.2.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.	**X**	**2**	**P**	**P**
Measurement and Data	**Quarters**			
Measure and estimate lengths.	**1**	**2**	**3**	**4**
NC.2.MD.1 Measure the length of an object in standard units by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	**X**	**2**	**P**	**P**
NC.2.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.	**X**	**2**	**P**	**P**
NC.2.MD.3 Estimate lengths in using standard units of inches, feet, yards, centimeters, and meters.	**X**	**2**	**P**	**P**
NC.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.	**X**	**2**	**P**	**P**
Relate addition and subtraction to length.	**1**	**2**	**3**	**4**
NC.2.MD.5 Use addition and subtraction, within 100, to solve word problems involving lengths that are given in the same units, using equations with a symbol for the unknown number to represent the problem.	**X**	**X**	**3**	**P**
NC.2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points and represent whole-number sums and differences, within 100, on a number line.	**X**	**X**	**3**	**P**
Build understanding of time and money.	**1**	**2**	**3**	**4**
NC.2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	**X**	**X**	**3**	**P**
NC.2.MD.8 Solve word problems involving: • Quarters, dimes, nickels, and pennies within 99¢, using ¢ symbols appropriately. • Whole dollar amounts, using the $ symbol appropriately.	**X**	**2**	**P**	**P**
Represent and interpret data.	**1**	**2**	**3**	**4**
NC.2.MD.10 Organize, represent, and interpret data with up to four categories. • Draw a picture graph and a bar graph with a single-unit scale to represent a data set. • Solve simple put-together, take-apart, and compare problems using information presented in a picture and a bar graph.	**1**	**P**	**P**	**P**
Geometry	**Quarters**			
Reason with shapes and their attributes.	**1**	**2**	**3**	**4**
NC.2.G.1 Recognize and draw triangles, quadrilaterals, pentagons, and hexagons, having specified attributes; recognize and describe attributes of rectangular prisms and cubes.	**X**	**X**	**X**	**4**
NC.2.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, fourths, fourth of, quarter of. • Describe the whole as two halves, three thirds, four fourths. • Explain that equal shares of identical wholes need not have the same shape.	**X**	**X**	**X**	**4**

Note: Both independent and collaborative student tasks should engage the following 8 Mathematical Practices as often as possible to develop math proficiency:

Mathematical Practices:

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

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