Grade 3 Mathematics
Prince William County Pacing Guide
2022-2023

Teacher focus groups have assigned a given number of days to each unit based on their experiences and knowledge of the curriculum. It is critical that teachers stay as close as possible to the pacing guidelines to ensure that all the Standards of Learning have been taught prior to the SOL assessment, and that, as children move within the Division, their math instruction remains coherent. Ongoing review should occur throughout the year.

Prince William County Regulation 602-1 describes the organization of the instructional day. **Mathematics is allotted 75 minutes in Grade 3.** This should include an uninterrupted 60-minute block of time for the lesson and an additional 15-minute block to be used for classroom routines, number talks, and/or other selected review activities. These types of activities are a critical element of mathematics instruction that provide essential practice and maintenance of key concepts and skills.

Teachers may find the full wording of the objectives, along with the essential knowledge and skills to be learned, in the Unit Guides. The Unit Guides were created by the Teacher Focus Groups and provide a deeper look at the curriculum as well as suggestions for learning experiences, assessments, and resources. These documents are available in Canvas and on the Mathematics SharePoint Website. More information about accessing SharePoint will be coming soon.

Classroom Routines should be an integral part of the development of mathematics understanding. Each day should include a brief (10-15 minutes), deliberate, and carefully planned time for review of key concepts and skills. It is not expected that all skills are addressed every day; each teacher should determine which skills and at what level may be appropriate on a given day. PowerPoints with three number sense routines for each week and daily spiral review questions have been provided. Number sense routines and spiral review routines are available in Canvas in each module.

Assessments are provided for each unit. Each unit includes an End of Unit Assessment on the standards covered in that unit. Reassessments by standard are available in Mastery Connect as well as pdf format in Canvas. In addition, VDOE Just in Time Quick Checks are available in Mastery Connect when applicable as well as pdf format in Canvas. All assessments are intended to be used to determine student growth and guide ongoing instruction. Assessment scoring guides are designed to meet the criteria in assessment Regulation 661-1.

Classroom Routines and On-Going Spiral Review	
Focus Topics	**Standards of Learning**
Teachers are expected to provide 10-15 minutes of spiral review each day. Topics should focus on areas that have previously been taught but may need continued reinforcement or practice. Teachers may choose to use the spiral review interactive whiteboard files that are available for each unit on the Math Staff Communities page. **The following SOLs will be taught and practiced throughout the year and will be tested in the units noted:** • Read Celsius and Fahrenheit temperatures to the nearest degree. (Unit 7) • Tell time to the nearest minute using analog and digital clocks. (Unit 7) • Identify, describe, create, and extend patterns found in objects, numbers, pictures, and tables. (Units 1, 6, and 8)	 3.10 3.9a 3.16

Unit 1: Place Value, Addition and Subtraction 1 August 22 – October 4 (29 days)	
Focus Topics'	**Standards of Learning**
Read, write and identify the place and value of each digit through ten-thousands **(5-digit numbers)**, with and without models.	3.1a
Round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand.	3.1b
Compare and order up to three whole numbers, each 9,999 or less.	3.1c
Estimate and determine the sum or difference of two whole numbers 9,999 or less. **(sums and differences of two numbers each 999 or less in this unit)**	3.3a
Create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less. **(999 in this unit)**	3.3b
Create equations to represent equivalent mathematical relationships. • Identify and use the appropriate symbol to distinguish between expressions that are equal and expressions that are not equal (e.g., 256 - 13 = 220 + 23; 143 + 17 = 140 + 20; and 457 + 100 ≠ 557 +100).	3.17
Determine the value of a collection of bills and coins whose total value is $5.00 or less.	3.6a
Compare the value of two sets of coins or two sets of coins and bills whose total value is $5.00 or less.	3.6b
Make change from $5.00 or less.	3.6c
Identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables. Note: Focus is on repeating and growing number patterns. In this unit, growing patterns will involve addition and subtraction rules only	3.16
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Place Value, Addition and Subtraction 1 **Includes extending numerical patterns**	**3.1a (partial),** **3.3 (partial), 3.6abc** **3.16 (partial),** **3.17 (partial)**
Objectives completed:	**3.1b, 3.1c**

Unit 2: Data Analysis and Probability **October 6 – October 26 (13 days)**	
Focus Topics	**Standards of Learning**
Investigate and describe the concept of probability as a measurement of chance and list possible outcomes for a single event. • List all possible outcomes for a single event (e.g., heads and tails are the two possible outcomes of flipping a coin). Limit the number of outcomes to 12 or fewer. • Describe the degree of likelihood of an outcome occurring using terms such as *impossible*, *unlikely*, *equally likely, likely*, and *certain*.	3.14
Collect, organize, and represent data in pictographs or bar graphs.	3.15a
Read and interpret data represented in pictographs and bar graphs.	3.15b
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Data Analysis and Probability	**3.14, 3.15ab**
Objectives completed:	

Unit 3: Multiplication and Division 1 **October 27 – November 30 (19 days)**	
Focus Topics	**Standards of Learning**
Represent multiplication and division through 10 x 10, using a variety of approaches and models. **(with 0, 1, 2, 4, 5, and 10 facts only)**	3.4a
Create and solve single-step practical problems that involve multiplication and division through 10 x 10. **(with 2, 4, 5, and 10 facts only)**	3.4b
Demonstrate fluency with multiplication facts of 0, 1, 2, 5, and 10. • Note: Demonstrating fluency of the rest of the facts through 12 x 12 is now in grade 4.	3.4c
Create equations to represent equivalent mathematical relationships. • Identify and use the appropriate symbol to distinguish between expressions that are equal and expressions that are not equal (eg., 3 x 4 = 6 x 2, 2 x 4 = 6 +2)	3.17
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Multiplication and Division 1	**3.4abc, 3.17**
Objectives completed	**3.4c**

Unit 4: Fractions December 1 – January 12 (20 days)	
Focus Topics	**Standards of Learning**
Name and write fractions and mixed numbers represented by a model.	3.2a
Represent fractions and mixed numbers with models and symbols.	3.2b
Compare fractions having like and unlike denominators using words and symbols (>, <, =, or ≠), with models.	3.2c
Solve practical problems that involve addition and subtraction with proper fractions having like denominators of 12 or less, using concrete and pictorial models representing area/regions (e.g., circles, squares, and rectangles), length/measurements (e.g., fraction bars and strips), and sets (e.g., counters).	3.5
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Fractions	**3.2abc, 3.5**
Objectives completed	**3.2abc, 3.5**

Unit 5: Multiplication and Division 2 January 13 – February 14 (16 ½ days)	
Focus Topics	**Standards of Learning**
Represent multiplication and division through 10 x 10, using a variety of approaches and models. (**3, 6, 7, 8, 9 facts only**)	3.4a
Create and solve single-step practical problems that involve multiplication and division through 10 x 10 (**3, 6, 7, 8, 9**)	3.4b
Demonstrate fluency with multiplication facts of **0, 1, 2, 5, 10.** • Note: Demonstrating fluency of the rest of the facts through 12 x 12 is now in grade 4.	3.4c
Solve single-step practical problems involving multiplication of whole numbers, where one factor is 99 or less and the second factor is 5 or less. .	3.4d
Create equations to represent equivalent mathematical relationships. • Identify and use the appropriate symbol to distinguish between expressions that are equal and expressions that not equal (e.g., 143 + 17 = 140 + 20; and 457 + 100 ≠).	3.17
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Multiplication and Division 2	
Objectives completed	**3.4abcd, 3.17**

Unit 6: Place Value, Addition, and Subtraction 2 February 15 – March 14 (17 days)	
Focus Topics	**Standards of Learning**
Read, write, and identify the place and value of each digit in a six-digit whole number, with and without models.	3.1a
Round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand. Solve problems using rounding of numbers.	3.1b
Compare and order whole numbers, each 9,999 or less.	3.1c
Estimate and determine the sum or difference of two whole numbers, each 9,999 or less.	3.3a
Create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less.	3.3b
Determine the value of a collection of bills and coins whose total value is $5.00 or less.	3.6a
Compare the value of two sets of coins or two sets of coins and bills.	3.6b
Make change from $5.00 or less.	3.6c
Identify, describe, create, and extend repeating and growing patterns found in objects, pictures, numbers, and tables.	3.16
Create equations to represent equivalent mathematical relationships. • Identify and use the appropriate symbol to distinguish between expressions that are equal and expressions that are not equal (e.g., 256 - 13 = 220 + 23; 143 + 17 = 140 + 20; and 457 + 100 ≠ 557 +100).	3.17
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Place Value, Addition and Subtraction 2	**3.1abc, 3.3ab, 3.6abc, 3.16, 3.17**
Objectives completed	

Unit 7: Measurement March 15 – April 14 (17 days)	
Focus Topics	**Standards of Learning**
Estimate and use U.S. Customary and metric units to measure length to the nearest inch, inch, foot, yard, centimeter, and meter.	3.7a
Estimate and measure the distance around a polygon in with no more than six sides order to determine its perimeter using U.S. Customary and metric units	3.8a
Estimate and count the number of square units needed to cover a given surface in order to determine its area.	3.8b
Estimate and use U.S. Customary and metric units **to** measure liquid volume in cups, pints, quarts, gallons, and liters.	3.7b
Tell time to the nearest minute, using analog and digital clocks.	3.9a
Solve practical problems related to elapsed time in one-hour increments within a 12-hour period. (within a.m. or within p.m.	3.9b
Identify equivalent periods of time, and solve practical problems related to equivalent periods of time.	3.9c
Read Celsius and Fahrenheit temperatures to the nearest degree.	3.10
*Note: **Telling time and reading temperature are tested in this unit.** These objectives should have been taught through the Classroom Routines. Because of this, minimal time is provided for direct instruction in these topics.*	
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Measurement	**3.7ab, 3.8ab, 3.9abc, 3.10**
Objectives completed	**3.7b, 3.9abc, 3.10**

Unit 8: Geometry April 17 – May 5 (14 days)	
Focus Topics	**Standards of Learning**
Identify and draw representations of points, lines, line segments, rays, and angles. • Describe endpoints and vertices as they relate to lines, line segments, rays, and angles.	3.11
Define polygon.	3.12a
Identify and name polygons with 10 or fewer sides in various orientations.	3.12b
Combine and subdivide no more than three polygons with three or four sides and name the resulting polygon(s).	3.12c
Identify and describe congruent and noncongruent plane figures.	3.13
Identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables. **Note** The focus in this unit will be on repeating and growing geometric figure patterns.	3.16
PWCS End-of-Unit Common Formative Assessment (Parts A and B): Geometry	**3.11, 3.12abc, 3.13, 3.16**
Objectives completed	

May 8 – 26 (15 days) SOL Review and Testing

May 29 – June 15 (13 days) Post SOL Topics and SOL Test Retakes	
Focus Topics	**Standards of Learning**
Math topics should be taught based on teacher's judgment regarding what students need most in preparation for 4th grade. Suggestions will be provided in the unit guide.	TBD by teacher