Grade 2 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 of the Standards of Learning have been taught by the end of the school year, and that, as children move within the Division, their mathematics 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 90 minutes in Grade 2.** This should include an uninterrupted 75-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 created by the Teacher Focus Groups provide 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. Classroom routines could include number sense routines, spiral reviews, and/or calendar. These types of activities are a critical element of mathematics instruction that provide essential practice and maintenance of key concepts and skills. PowerPoints with three number sense routines for each week and PowerPoints of daily spiral review questions have been provided. Number sense routines and spiral review routines are available in Canvas in each module.

Assessment Opportunities are provided throughout each unit. Each unit includes an End of Unit Assessment on the standards covered in that unit. 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. When applicable, End of Unit Assessments are pushed out through Mastery Connect.

Students who do not demonstrate mastery on Unit Assessments should receive ongoing instruction and reassessment until mastery is met with at least a score of S (meets grade level requirements). Reassessments can include exit tickets, observations, student interviews, and teacher-created assessments using the mastery assessment as a guide.

Unit 1: Number Sense and Computation 1 August 22 – September 16 (18 days)	
Focus Topics	**Standards of Learning**

Computation and Estimation
Computational fluency: Addition and Subtraction **within 20**
• Review
  o count on/ count back
  o combinations of 10
  o doubles/halves to 10
• Introduce
  o combinations to 20
  o doubles/halves to 20
	2.5b

Solving single-step practical problems using number sentences **within 20** • Join/Separate (Result Unknown) • Join/Separate (Change Unknown) • Part- Part Whole (Both Parts Unknown)	2.5a
Number and Number Sense Place Value • Read, write, and identify place and value of **two-digit** numbers with and without models • Identify numbers that are **10 more up to 120** • Compare (no symbols) and order whole numbers **0 to 120** • Skip counting by **5s and 10s**	2.1a 2.1b 2.1c 2.2a
Measurement Money Review • Count a collection of **like** coins to **$1.00**	1.8 (2.7a)
Unit 1: Unit Assessment	**1.8, 2.1abc, 2.2a, 2.5ab**
Objectives Completed	**NONE**

Unit 2: Number Sense and Computation 2 September 19 – October 19 (20 days)	
Focus Topic	**Standards of Learning**
Computation and Estimation Computational Fluency: Addition and Subtraction **<u>to 20</u>** • Reviewing strategies from Unit 1 • Related Facts • Near Doubles	2.5b
Single-step practical problems **<u>within 20</u>** • Join and Separate (Start Unknown)	2.5a
Number and Number Sense Place Value • Read, write and identify place and value of **<u>two-digit</u>** numbers with and without models • Represent **<u>two-digit</u>** number multiple ways using models o Example: 24 2 tens 4 ones, 1 ten 14 ones, 0 tens 24 ones	2.1a
• 10 more/less with models up to 120	2.1b
• Compare whole number *(Review words and **<u>introduce symbols)</u>***	2.1c
• Round two-digit numbers to the nearest ten	2.1d
• Skip count by twos, fives, and tens to **<u>120</u>**	2.2a
• Counting backwards by tens from **<u>120</u>**	2.2b
Measurement Money • Count a collection of mixed coins to **<u>25¢</u>**; use $, ¢, .	2.7ab
Unit 2: Unit Assessment	**2.1abcd, 2.2ab, 2.5ab, 2.7a**
Objectives Completed	**NONE**

Unit 3: Number Sense and Computation 3 & Calendar October 20 – November 16 (20 days)	
Focus Topic	**Standards of Learning**
Computation and Estimation Computational Fluency: Addition and Subtraction **to 20** • Reviewing strategies from Unit 1 & 2 • Make a ten (bridging 10)	2.5b
Single-step practical problems **within 20** • Part-Part Whole (Whole Unknown) • Part-Part Whole (One Part Unknown)	2.5a
Number and Number Sense Place Value • Read, write and identify place and value with and without models to **300** • Represent **three-digit** numbers multiple ways using models o Example: 124 1 hundred 2 tens 4 ones, 12 tens 14 ones, 0 tens 124 ones • Compare and order **three-digit** whole numbers ***(using symbols*** *and words)* • Skip count by twos, fives, and tens to **120** • Counting backwards by tens from **120**	2.1a 2.1c 2.2a 2.2b
Ordinal Numbers • count and identify the ordinal positions first through twentieth, using an ordered set of objects • write the ordinal numbers 1st through 20th	2.3a 2.3b
Patterns, Functions, and Algebra Equality **within 20** • use of the equal symbol (=) and the use of the not equal symbol (≠) (e.g., 10 = 5 + 5; 3 + 9 = 20 – 8; 12 + 3 ≠ 8 + 4)	2.17
Measurement Money • Count and compare a collection of mixed coins to **50¢**; use $, ¢, .	2.7ab
Calendar • determine past and future days of the week; and • identify specific days and dates on a given calendar	2.10a 2.10b
Unit 3: Progress Check	**2.7ab, 2.10ab**
Unit 3: Unit Assessment	**2.1ac, 2.3ab, 2.5ab, 2.17**
Objectives Completed	**2.3ab**

Unit 4: Fractions and Time 1 November 17 – December 6 (10 days)	
Focus Topic	**Standards of Learning**
Number and Number Sense Fractions • Review: Halves, Fourths (Fair Share)	
• Name and write fractions for **halves, fourths, eighths** o set o region o length model	2.4a
• Represent fractional parts o with models o with symbols	2.4b
• Compare unit fractions ($\frac{1}{2}, \frac{1}{4}, \frac{1}{8}$) with models	2.4c
Even or odd • Use objects to determine whether a number is even or odd to **20**	2.2c
Measurement • Review telling time to the hour and half-hour	1.9a (2.9)
Unit 4: Unit Assessments	**2.2c, 2.4abc, 2.9**
Objectives Completed	**NONE**

Unit 5: Number Sense and Computation 4 December 7 – January 13 (14 days)	
Focus Topic	**Standards of Learning**

Number and Number Sense
Place Value
• Read, write and identify place and value with and without models to **600**
• Represent **three-digit** number multiple ways using models to **600**
  o Example: 124
  1 hundred 2 tens 4 ones, 12 tens 14 ones, 0 tens 124 ones
	2.1a

• Identify numbers **100 more and 100 less** up to **600**	2.1b
• Compare and order **three-digit** whole numbers to **600** ***(using symbols*** *and words)*	2.1c
• Round two-digit numbers to the nearest ten *(form of estimation)*	2.1d
• Skip count by twos, fives, and tens to **120**	2.2a
• Counting backwards by tens from **120**	2.2b
Computation and Estimation Estimating sums and differences with 2-digit numbers, • Estimate sums and differences • Using practical situations (real life and practical problems)	2.6a*
Determine sums and differences with 2-digit numbers • **Without regrouping; no traditional algorithms** *(refer to unit guide for strategies)*	2.6b*
Create and Solve single-step practical problems Create and Solve two-step practical problems (*only solve in this unit*) • Join/Separate • Part-Part Whole	2.6c*
Measurement Money • Count and compare collections of coins to **$1.00;** use $, ¢, .	2.7ab
**Unit 5: Unit Assessment*	**2.1abcd, 2.2ab, 2.6abc, 2.7ab**
Objectives Completed	**NONE**

**Students still need practice with fact fluency within 20 as stated in SOL 2.5ab.*

Unit 6: Fractions and Time 2 January 17 – February 7 (14 ½ days)	
Focus Topic	**Standards of Learning**
Number and Number Sense Fractions • Review: Halves, Fourths, Eighths (Fair Share)	
• Name and write fractions for **halves, fourths, eighths, thirds, and sixths** o set o region o length model	2.4a
• Represent fractional parts o with models o with symbols	2.4b
• Compare unit fractions ($\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{3}, \frac{1}{6}$) with models	2.4c
• Skip counting by twos, fives, and tens	2.2a
• Use objects to determine whether a number is even or odd	2.2c
Measurement Time • Tell and write time to the nearest 5 minutes using analog and digital clocks	2.9
Money • Count and compare collections of coins and one-dollar bills to **$1.25;** use $, ¢, .	2.7ab
Unit 6: Unit Assessment	**2.2c, 2.4abc, 2.9**
Objectives Completed	**2.2c, 2.4abc**

Unit 7: Computation & Data February 8 – March 17 (27 days)	
Focus Topic	**Standards of Learning**
Computation and Estimation Estimating sums and differences with **2-digit** numbers, • Using rounding as a form of estimation • Using practical situations (real life and practical problems)	2.6a*
Determine sums and differences with **2-digit** numbers • **regrouping; no traditional algorithms** *(refer to unit guide for strategies)*	2.6b*
Create and Solve single-step and two-step practical problems • Compare	2.6c*
Patterns, Functions, and Algebra Equality • use of the equal symbol (=) and the use of the not equal symbol (≠) (e.g., 10 = 5 + 5; 3 + 9 = 20 – 8; 12 + 3 ≠ 8 + 4)	2.17
Probability and Statistics Data • collect, organize, and represent data in pictographs and bar graphs; and • read and interpret data represented in pictographs and bar graphs.	2.15a 2.15b
**Students still need practice with fact fluency within 20 as stated in SOL 2.5ab.*	
Unit 7: Unit Assessment	**2.6abc, 2.15ab, 2.17**
Objectives Completed	**2.15ab, 2.17**

Unit 8: Measurement March 20 – April 18 (16 days)	
Focus Topic	**Standards of Learning**
Number and Number Sense • Skip count by ~~twos,~~ fives, and tens to **<u>120</u>**	2.2a
Measurement Money • Count and compare collections of coins and one-dollar bills to **<u>$1.50;</u>** use $, ¢, .	2.7ab
Length • Estimate and measure length to nearest inch	2.8a
Weight • Estimate and measure to the nearest pound	2.8b
Time • Tell and write to the nearest 5 minutes (analog, digital)	2.9
Calendar • Determine past and future days of the week • Identify specific days and dates on a given calendar	2.10a 2.10b
Temperature: • Read to the nearest 10 degrees Fahrenheit	2.11
Unit 8: Unit Assessment	**2.7ab, 2.8ab, 2.9, 2.10ab, 2.11**
Objectives Completed	**2.8ab, 2.9, 2.10ab, 2.11**

Unit 9: Probability and Patterns April 19 – May 2 (9 days)	
Focus Topic	**Standards of Learning**

Probability and Statistics
Probability
• Collect data from probability experiments
• Predict outcomes of repeated experiments
 	
Patterns, Functions, and Algebra
Patterns
• identify, describe, create, extend, and transfer patterns
  o objects
  o pictures
  o numbers
	2.14
	
	2.16

Unit 9: Unit Assessment	**2.14, 2.16**
Objectives Completed	**2.14, 2.16**

Unit 10: Number Sense and Computation 5 May 3 – June 1 (21 days)	
Focus Topic	**Standards of Learning**
Number and Number Sense Place Value	
• Read, write and identify place and value with and without models to **999**	2.1a
• Represent **three-digit** number multiple ways using models o Example: 124 1 hundred 2 tens 4 ones, 12 tens 14 ones, 0 tens 124 ones	
• Identify numbers **10 more/less and 100 more/less** up to 999	2.1b
• Compare and order **three-digit** whole numbers ***(using symbols** and words)*	2.1c
• Round two-digit numbers to the nearest ten *(form of estimation)*	2.1d
• Skip count by twos, fives, and tens to **120**	2.2a
• Counting backwards by tens from **120**	2.2b
Computation and Estimation	
Estimating sums and differences with **2-digit** numbers, • Using rounding as a form of estimation • Using practical situations (real life and story problems)	2.6a*
Determine sums and differences with **2-digit** numbers • **regrouping; no traditional algorithms** *(refer to unit guide for strategies)*	2.6b*
Create and Solve **single-step** and **two-step** practical problems • Join/ Separate • Part-Part Whole • Compare	2.6c*
Measurement	
Money • Count and compare collections of coins and one-dollar bills to **$2.00;** use $, ¢, . .	2.7ab
**Unit 10: Unit Assessment*	**2.1abcd, 2.2ab, 2.5ab, 2.6abc, 2.7ab**
Objectives Completed	**2.1abcd, 2.2ab, 2.5ab, 2.6abc, 2.7ab**

**Students still need practice with fact fluency within 20 as stated in SOL 2.5ab.*

Unit 11: Geometry June 2 – June 14 (9 days)	
Focus Topic	**Standards of Learning**
Geometry Symmetry • Draw a line of symmetry in a figure • Identify and create figures with at least one line of symmetry Plane and solid figures • Identify, describe, compare, and contrast o Circles. spheres o Squares, cubes o Rectangles, rectangular prisms	 2.12ab 2.13
Unit 11: Unit Assessment	**2.12ab, 2.13**
Objectives Completed	**2.12ab, 2.13**