

Kindergarten 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 70 minutes in Kindergarten.** This should include an uninterrupted 55-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. Examples may include activities with number sense routines, calendar, weather graph, attendance, counting jar, estimation jar, counting, subitizing, patterns, coins, etc. These types of activities are a critical element of mathematics instruction that provide essential practice and maintenance of key concepts and skills.

Assessment Opportunities are provided throughout each unit. Each unit includes an End of Unit Assessment on the unit's focus standards. There is also a checklist that tracks the progression of the oral standards throughout the year. All assessments and checklists 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](#).

- Students should have access to counters, number charts, and other manipulatives as needed/indicated.
- The assessments **are not intended to be administered all at once at the end of the unit** – items may be assessed, as appropriate, throughout the unit, including during centers, small groups, etc.
- Once a student shows mastery of a concept at the level indicated, it is not necessary to re-assess *at that level* on subsequent assessments or checklists except for the purpose of ensuring enduring understanding.

Unit 1: Introduction and Exploration August 22 – September 14 (16 days)	
Focus Topics	Standards of Learning
<i>NOTE: Number Sense and Computation concepts should be reviewed throughout the year through Classroom Routines</i>	
Calendar Routines <ul style="list-style-type: none"> • Tell how many [only 6 or fewer objects in this unit] • Count forward from <u>0 to 20</u> • Coin Recognition: Penny • Read a calendar • Weather Graph <i>Measurement</i> Compare <ul style="list-style-type: none"> • Explore materials <i>Pattern, Functions, and Algebra</i> Sorting <ul style="list-style-type: none"> • colors, shapes, same/different 	K.1a K.3a K.7 K.8 K.9, K.11a K.9 K.12
Unit 1 Checklist	K.1a, K.3a
Unit 1 Assessment	None
Objectives Completed	None

Unit 2: Number Sense 1
September 15 – October 20 (23 days)

Focus Topics	Standards of Learning
<p><i>Number and Number Sense</i></p> <p>Numbers <u>0-6</u></p> <ul style="list-style-type: none"> • Count Sets <ul style="list-style-type: none"> ○ Counting with one-to-one correspondence ○ Tell how many • Read, Write, Represent <p>Compare and Order Sets <u>up to 6</u></p> <p>Count forward <u>0 – 20</u> orally</p> <p>Introduce “<i>Number after</i>” / “<i>One more</i>” orally <u>to 20</u> without counting all</p> <p><i>Measurement</i></p> <p>Money</p> <ul style="list-style-type: none"> • Coin Recognition: Nickel • Recognize attributes of a penny and a nickel • Identify number of pennies equivalent to a nickel 	<p>K.1a</p> <p>K.1b</p> <p>K.2ab</p> <p>K.3a</p> <p>K.3c</p> <p>K.7</p>
Unit 2 Checklist	K.1a, K.3ac
Unit 2 Assessment	K.1b, K.2ab, K.7
Objectives Completed	None

Unit 3: 2D Geometry and Exploring Measurement October 21 – November 22 (17 days)	
Focus Topics	Standards of Learning
<p>Geometry Shapes (circle, square, rectangle, triangle)</p> <ul style="list-style-type: none"> • Identify • Describe • Compare the size and shape • Relative location <ul style="list-style-type: none"> ○ Positional words (above, below, next to) ○ Orientations in space <p>Measurement Comparing two objects or events</p> <ul style="list-style-type: none"> • Length (shorter, longer) • Weight (lighter, heavier) • Height (shorter, taller) 	<p>K.10a</p> <p>K.10b</p> <p>K.10c</p> <p>K.9</p>
Unit 3 Checklist	None
Unit 3 Assessment	K.10abc
Objectives Completed	K.10abc

Unit 4: Patterns and Sorting November 28 – December 16 (15 days)	
Focus Topics	Standards of Learning
<p>Patterns, Functions, and Algebra Repeating Patterns with objects, sounds, movements, and pictures</p> <ul style="list-style-type: none"> • Identify the “core” (unit) • Describe • Extend • Create • Transfer (e.g. <i>snap, snap, clap</i> is the same as <i>blue, blue, red</i> is the same as <i>AAB</i>) <p>Sort and Classify</p> <ul style="list-style-type: none"> • color, size, shape, thickness 	<p>K.13</p> <p>K.12</p>
Unit 4 Checklist	None
Unit 4 Assessment	K.12, K.13
Objectives Completed	K.12, K.13

Unit 5: Number Sense 2
January 3 – February 10 (26 ½ days)

Focus Topics	Standards of Learning
<p><i>Number and Number Sense</i> Numbers <u>0-10</u></p> <ul style="list-style-type: none"> • Count Sets <ul style="list-style-type: none"> ○ Counting with one-to-one correspondence (ex.Counting Jar) ○ Tell how many • Read, Write, Represent <p>Compare and Order Sets <u>up to 10</u></p> <p>Count forward orally by ones <u>to 50</u></p> <p>Count forward by tens with objects <u>to 50</u></p> <p>Introduce: Count backward <u>from 5</u></p> <p>Review “<i>Number after</i>”/“<i>One more</i>” orally <u>to 50</u> without counting all</p> <p>Introduce “<i>Number before</i>” / “<i>One less</i>” orally <u>from 5</u> without counting all</p> <p>Fluency</p> <ul style="list-style-type: none"> • Part-Whole Relationships – Numbers <u>to 5</u> <p><i>Measurement</i> Money</p> <ul style="list-style-type: none"> • Introduce: Dime <ul style="list-style-type: none"> ○ Recognition ○ Define attributes ○ Number of pennies equivalent • Review: <ul style="list-style-type: none"> ○ Attributes of a penny and a nickel ○ Penny equivalency to a nickel 	<p>K.1a</p> <p>K.1b</p> <p>K.2ab</p> <p>K.3a</p> <p>K.3d</p> <p>K.3b</p> <p>K.3c</p> <p>K.3c</p> <p>K.4a</p> <p>K.7</p>
Unit 5 Checklist	K.3abcd
Unit 5 Assessment	K.1b, K.2ab, K.4a, K.7
Objectives Completed	None

Unit 6: Fractions (Fair Shares) February 13 – February 22 (7 days)	
Focus Topics	Standards of Learning
<p><i>Number and Number Sense</i></p> <p>Fractions – Equal sharing with two sharers</p> <ul style="list-style-type: none"> • Represent concretely or pictorially • Solve practical problems • Parts of the whole • One half/halves 	K.5
Unit 6 Checklist	None
Unit 6 Assessment	K.5
Objectives Completed	K.5

Unit 7: Number Sense 3
February 23 – March 30 (26 days)

Focus Topics	Standards of Learning
<p><i>Number and Number Sense</i> Numbers <u>0-15</u></p> <ul style="list-style-type: none"> • Count Sets <ul style="list-style-type: none"> ○ Counting with one-to-one correspondence (ex: Counting Jar) ○ Tell how many • Read, Write, Represent <p>Compare and Order Sets <u>up to 10</u></p> <p>Count forward orally by ones <u>to 70</u></p> <p>Count forward by tens with objects <u>to 70</u></p> <p>Introduce: Count backward <u>from 10</u></p> <p>Review “<i>Number after</i>”/“<i>One more</i>” orally <u>to 70</u> without counting all</p> <p>Review “<i>Number before</i>” / “<i>One less</i>” orally <u>from 10</u> without counting all</p> <p>Fluency</p> <ul style="list-style-type: none"> • Part-Whole Relationships – Numbers <u>to 5</u> <p>Describe</p> <ul style="list-style-type: none"> • Part-Whole Relationships Numbers <u>to 10</u> <p><i>Computation and Estimation</i> Single Step Story and Picture Problems</p> <ul style="list-style-type: none"> • Sums <u>to 5</u> • Difference <u>within 5</u> • Join (result unknown) • Separate (result unknown) <p><i>Measurement</i> Money</p> <ul style="list-style-type: none"> • Introduce: Quarter <ul style="list-style-type: none"> ○ Recognition ○ Define attributes • Review <ul style="list-style-type: none"> ○ Attributes of a penny, nickel, and dime ○ Penny equivalency to nickel and dime 	<p>K.1a</p> <p>K.1b</p> <p>K.2ab</p> <p>K.3a</p> <p>K.3d</p> <p>K.3b</p> <p>K.3c</p> <p>K.3c</p> <p>K.4a</p> <p>K.4b</p> <p>K.6, K.1ab</p> <p>K.7</p>
Unit 7 Checklist	K.1a, K.3abcd
Unit 7 Assessment	K.1b, K.2ab, K.4ab, K.6
Objectives Completed	None

Unit 8: Data Analysis
April 11 – April 24 (9 days)

Focus Topics	Standards of Learning
<p><i>Probability and Statistics</i></p> <p>Data</p> <ul style="list-style-type: none"> • Object graphs, pictures graphs, and tables <ul style="list-style-type: none"> ○ Collect ○ Organize ○ Represent Data • Read and Interpret Data <p><i>Number and Number Sense</i></p> <p>Compare and Order Sets up to 15</p>	<p>K.11a</p> <p>K.11b</p> <p>K.2ab</p>
Unit 8 Checklist	None
Unit 8 Assessment	K.2ab, K.11ab
Objectives Completed	K.11ab

Unit 9: Number Sense 4 April 25 – May 19 (19 days)	
Focus Topics	Standards of Learning
<i>Number and Number Sense</i>	
Numbers <u>0-20</u> <ul style="list-style-type: none"> • Count Sets <ul style="list-style-type: none"> ○ Counting with one-to-one correspondence (ex.Counting Jar) ○ Tell how many • Read, Write, Represent 	K.1a
Compare and Order Sets <u>up to 10</u>	K.2ab
Count forward orally by ones <u>to 100</u>	K.3a
Count forward by tens with objects <u>to 100</u>	K.3d
Introduce: Count backward <u>from 10</u>	K.3b
“Number after”/“One more” orally <u>to 100</u> without counting all	K.3c
“Number before” / “One less” orally <u>from 10</u> without counting all	K.3c
Fluency <ul style="list-style-type: none"> • Part-Whole Relationships – Numbers <u>to 5</u> 	K.4a
Describe <ul style="list-style-type: none"> • Part-Whole Relationships Numbers <u>to 10</u> 	K.4b
<i>Computation and Estimation</i>	
Single Step Story and Picture Problems <ul style="list-style-type: none"> • Sums <u>to 10</u> • Difference <u>within 10</u> • Join (result unknown) • Separate (result unknown) • Part- Part Whole (Whole Unknown) • Part- Part Whole (Parts Unknown) 	K.6, K.1ab
<i>Measurement</i>	
Money <ul style="list-style-type: none"> • Introduce: Penny equivalency to quarter • Review: Attributes of a penny, nickel, dime, and quarter 	K.7
Unit 9 Checklist	K.1a, K.3abcd
Unit 9 Assessment	K.1a, K.2ab, K.4b, K.6
Objectives Completed	K.1ab, K.2ab, K.3abd

Unit 11: Number Sense 5 June 5 – June 14 (8 days)	
Focus Topics	Standards of Learning
<p><i>Number and Number Sense</i> “Number after”/“One more” orally to 100 without counting all</p> <p>“Number before” / “One less” orally from 10 without counting all</p> <p>Fluency</p> <ul style="list-style-type: none"> • Part-Whole Relationships – Numbers to 5 <p>Describe</p> <ul style="list-style-type: none"> • Part-Whole Relationships Numbers to 10 <p><i>Computation and Estimation</i> Single Step Story and Picture Problems</p> <ul style="list-style-type: none"> • Sums to 10 • Difference within 10 • Join (result unknown) • Separate (result unknown) • Part- Part Whole (Whole Unknown) • Part- Part Whole (Parts Unknown) 	<p>K.3c</p> <p>K.3c</p> <p>K.4a</p> <p>K.4b</p> <p>K.6, K.1ab</p>
Unit 11 Checklist	K.3c
Unit 11 Assessment	K.4ab, K.6
Objectives Completed	K.3c, K.4ab. K.6