

Grade K Mathematics – Unit 1: Counting Numbers 0-10

Phoenixville Area School District

Stage 1 Desired Results		
<p>PA Core Standards: CC.2.1.K.A.1 Know number names and write and recite the count sequence.</p> <p>CC.2.1.K.A.2 Apply one-to-one correspondence to count the number of objects.</p> <p>CC.2.1.K.A.3 Apply the concept of magnitude to compare numbers and quantities.</p> <p>CC.2.4.K.A.4 Classify objects and count the number of objects in each category.</p>	Transfer	
	<p>TRANSFER GOALS <i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> • <i>Number Sense:</i> Develop a sound foundation to demonstrate the value of numbers by describing their various representations, relationships, and patterns. • <i>Mathematical Vocabulary:</i> Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem-solving methods, and rationale. 	
	Meaning	
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"> <p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> • Mathematical ideas must be communicated clearly in written, visual, or oral form. • There are many ways to represent a number. • Mathematicians use place value concepts to represent amounts. </td> <td style="width: 50%;"> <p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> • What is the pattern here? How do I represent it? • What are different ways to represent a number? • How do I demonstrate the relationship among numbers, quantities, and place value for whole numbers? </td> </tr> </table>	<p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> • Mathematical ideas must be communicated clearly in written, visual, or oral form. • There are many ways to represent a number. • Mathematicians use place value concepts to represent amounts.
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Knowledge and Skills Acquisition		
<p>KNOWLEDGE <i>Students will...</i></p> <ul style="list-style-type: none"> • Count groups of 0-10 • Read and write the numerals 0-10 • Match and sort • Understand same and not the same 	<p>SKILLS <i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> • Counting groups of objects 0-10. • Reading and writing the numerals 0-10. • Matching a manipulative to a given example. 	

	<ul style="list-style-type: none"> • Understand different • Pair up sets of objects with other sets of the same quantity • Understand the concept of one more, one less and same number • Determine one more • Know how many more • Understand the meaning of less and fewer • Use more and less to compare number values • Pair up sets of one-to-one with other sets of the same quantity • Compose numbers through 5 • Decompose numbers through 5 • Know that fingers can represent a set of objects up to 5 • Know that fingers and toes can represent a set of objects up to 20 <p>VOCABULARY</p> <ul style="list-style-type: none"> • Numbers 0-9 • Same / Not Same / Different • One More / One Less 	<ul style="list-style-type: none"> • Sorting and drawing objects based on qualities of same or not the same. • Pairing up sets of objects with other sets of the same quantity. • Counting two groups of objects and explain which has more or less/fewer. • Counting a group of objects and show another group with one more. • Counting two groups of objects and tell how many more. • Composing numbers through 5 by coloring a set of given cubes two colors to show that lesser numbers can make up greater numbers (SB p. 10). • Crossing off objects to identify how many are left behind (SB p. 21).
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Stage 2 – Evidence

Code A/M/T	Evaluative Criteria	Assessment Evidence	
M	<i>What criteria will be used in each assessment to evaluate attainment of the</i>	<p>PERFORMANCE TASK(S) <i>Students will demonstrate understanding (meaning-making and transfer) through complex performance by...</i></p> <p>Performance Task Chapter 1: Apply one-to-one correspondence to draw the number of objects.</p>	<p>Differentiation Considerations:</p> <ul style="list-style-type: none"> • IEP/ 504 plans • Small group instruction

M	<p><i>desired results?</i></p>	<p>Students will create a robot that has 1 nose, 2 eyes, 3 ears, 4 arms and 5 different colored buttons (MIF page to use for robot body.)</p> <ul style="list-style-type: none"> • <i>Goal:</i> Your task is to build a robot that has 1 nose, 2 eyes, 3 ears, 4 arms and 5 different colored buttons. • <i>Role:</i> You are an inventor. • <i>Audience:</i> Scientists • <i>Situation:</i> You are an inventor. You need to build a robot to help scientists complete their experiments. You have a robot body. Your robot body needs to be completed. Please draw 1 nose, 2 eyes, 3 ears, 4 arms and 5 different colored buttons. Can you complete this mission? • <i>Product:</i> Your robot plan will have 1 nose, 2 eyes, 3 ears, 4 arms and 5 different colored buttons drawn onto their robot body. • <i>Success Criteria:</i> Your robot plan shows 1 nose, 2 eyes, 3 ears, 4 arms and 5 different colored buttons clearly drawn onto your robot body. <p>Performance Task Chapter 2: Classify bears by their color and count the number of bears in each category.</p> <p><i>Goal:</i> Your task is to get all the bears back to their matching-colored pen and count how many bears are back in the zoo.</p> <ul style="list-style-type: none"> • <i>Role:</i> You are a bear zookeeper. • <i>Audience:</i> Other zookeepers • <i>Situation:</i> You are the bear zookeeper. All the bears escaped from their pens. The other zookeepers need you to get the bears back into their matching-colored pens before the zoo opens. You must count the bears to make sure that all the bears are returned. The zookeeper must identify which group of bears has the most and which group of bears has the least. • <i>Product:</i> The bear counters will be sorted by color and grouped together. The zookeeper will count the number of bears in the pen and place a number card next to the bears. Students will properly identify the group that is the least and the most. • <i>Success Criteria:</i> Your bears will be sorted by color, counted accurately and the matching number will be represented. Students will properly identify the groups that are the least and the most. 	<ul style="list-style-type: none"> • One-on-one conferring • Vocabulary Posters • Individual goal setting • Audio and visual supports • Various questioning strategies • Strategic partnering • Flexible math groups • Extra Practice • Enrichment • Space for movement and breaks • Additional time as needed • Review directions • Restate information
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A	<p><i>What criteria will be used in each assessment to evaluate attainment of the desired results?</i></p>	<p>OTHER EVIDENCE</p> <p>Math Skill Check (Marking Period 1):</p> <ul style="list-style-type: none"> • Teacher checklist to record how high the student can count. • Teacher checklist to identify the name of the numerals 1-10. • Teacher checklist to identify numbers that come before and after a given number 1-10. <p>Number Formation Assessment – paper/ pencil task or whiteboard</p> <p>“Make it 4 Ways” Worksheet - represent the relationship between numbers</p> <p>Chapter One MIF 2020 Virtual Assessment PowerPoint 2020</p> <p>Chapter Two MIF 2020 Virtual Assessment PowerPoint 2020</p>	<p>Differentiation Considerations:</p> <ul style="list-style-type: none"> • IEP/ 504 plans • Small group instruction • One-on-one conferring • Vocabulary Posters • Individual goal setting • Audio and visual supports • Various questioning strategies • Strategic partnering • Flexible math groups • Extra Practice • Enrichment • Space for movement and breaks • Additional time as needed • Review directions • Restate information