

Cambria Heights School District Curriculum

Course Name Mathematics

Grade Level Kindergarten

Unit 1	Counting and Cardinality			
Time Frame	4-5 Weeks			
Key Concepts	Essential Questions	PA Core Standard (Descriptor)	Eligible Content (Grades 3-5)	Terminology
Number identification (naming and writing) Counting	How do I count to 100?	CC.2.1.K.A.1 Know number names and write and recite the count sequence.	Count to 100 by ones and by tens.	Counting on
	How do I count forward?		Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	
	How do I write numbers?		Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	
One-to-one correspondence Identify how many	How do I count objects using one-to-one correspondence?	CC.2.1.K.A.2 Apply one-to one correspondence to count the number of objects.	Understand the relationship between numbers and quantities; connect counting to cardinality.	One-to-one correspondence
	How do I identify how many objects are given?		When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object	
			Understand that the last number name said tells the number of objects counted. The	

			<p>number of objects is the same regardless of their arrangement or the order in which they were counted.</p> <p>Understand that each successive number name refers to a quantity that is one larger.</p> <p>Count to answer “how many?” questions about as many as 20 things arranged in a line, rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.</p>	
<p>Comparing numbers</p> <p>Greater than</p> <p>Less than</p> <p>Equal to</p>	<p>How do I compare numbers?</p>	<p>CC.2.1.K.A.3</p> <p>Apply the concept of magnitude to compare numbers and quantities.</p>	<p>Compare numbers. Compare two numbers between 1 and 10 presented as written numerals.</p> <p>Compare numbers. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.)</p>	<p>Greater than</p> <p>Less than</p> <p>Equal</p>

Unit 2	Numbers and Operations – Base Ten			
Timeframe	5-6 Weeks			
Key Concepts	Essential Questions	PA Core Content Standard	Eligible Content	Terminology
Place value	How do I compose and decompose numbers?	CC.2.1.K.B.1 Use place value to compose and decompose numbers within 19.	Compose and decompose numbers from 11-19 into ten ones and some further ones. Use objects or drawings, and record each composition or decomposition by a drawing or equation; understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	Tens Ones

Unit 3	Operations and Algebraic Thinking-			
Timeframe	5-6 Weeks			
Key Concepts	Essential Questions	PA Core Content Standard	Eligible Content	Terminology
Addition Subtraction	How do I solve addition problems?	CC.2.2.K.A.1 Extend the concepts of putting together and taking apart to add and subtract within 10.	Represent addition and subtraction with objects, fingers, mental images, drawings (drawings need not show details, but should show the mathematics in the problem), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations	Addition Subtraction
	How do I solve subtraction problems?		Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	
			Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).	
			For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	
			Fluently add and subtract within 5.	

Unit 4 Measurement and Data	Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects.			
Timeframe	5-6 Weeks			
Key Concepts	Essential Questions	PA Core Content Standard	Eligible Content	Terminology
Length Width Height Describing objects	How do I describe objects?	CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects.	<p>Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.</p> <p>Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.</p>	Length Width Height
Classifying objects	How do I classify objects?	CC.2.4.K.A.4 Classify objects and count the number of objects in each category.	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)	

Unit 5	Geometry- Reason with Shapes and their attributes			
--------	---	--	--	--

Timeframe	5-6 Weeks			
Key Concepts	Essential Questions	PA Core Content Standard	Eligible Content	Terminology
<p>Describing two and three dimensional shapes Distinguish between two and three dimensional shapes</p>	<p>How do I identify two and three-dimensional shapes? How do I describe two and three-dimensional shapes?</p>	<p>CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes.</p>	<p>Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.</p> <p>Correctly name shapes regardless of their orientations or overall size.</p> <p>Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).</p>	<p>Above Below Beside In front of Behind Next to Cube Cylinder Sphere Cone Square Rectangle Triangle Circle</p>
<p>Identify similarities and differences between two and three dimensional shapes Draw shapes Join simple shapes to form larger shapes</p>	<p>How do I compare two and three-dimensional shapes? How do I create two and three-dimensional shapes?</p>	<p>CC.2.3.K.A.2 Analyze, compare, create, and compose two- and three-dimensional shapes.</p>	<p>Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).</p> <p>Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</p> <p>Compose simple shapes to form larger shapes. For example, "can you join these two triangles with full sides touching to make a rectangle?"</p>	<p>Vertices Corners Equal sides</p>