

## Pre-K Mathematics Scope & Sequence

Unit	Standard(s)/Outcome(s)/Topic(s)	Essential/Guiding Questions
Unit 1: Attributes, Sorting, Classifying, and Data (September)	<p><b>PK.MD.B.3:</b> Sort objects into given categories and self-selected categories. Identify the attribute by which the objects were sorted. (Limit category counts to less than 5) *The standards below are formally taught in Unit 3, however teachers are encouraged to make connections to the following standards as appropriate.</p> <p><b>PK.G.A.2:</b> Group the shapes by like attributes and distinguish between examples and nonexamples of various two dimensional shapes.</p> <p><b>PK.G.B.4:</b> Use real world examples to describe three dimensional objects using correct mathematical vocabulary (cube, sphere, and cylinder).</p>	<ul style="list-style-type: none"> <li>● In what ways can objects be sorted?</li> <li>● What rule was used to sort the objects?</li> <li>● How can objects be described and compared?</li> <li>● What can you tell me about the data on this graph?</li> </ul>
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Unit 2: Understanding Number Relationships 0-5 (October/ November)	<p><b>PK.CC.A.1:</b> Verbally count to 10 by ones and then develop rote counting to 20 by ones.</p> <p><b>PK.CC.B.4:</b> Understand the relationship between numbers and quantities to 5, (then to 10, unit 5); connect counting to cardinality.</p> <p><b>PK.CC.B.4a:</b> When counting objects 1-10, say the number names in standard order, pairing each object with one and only one number</p>	<ul style="list-style-type: none"> <li>● How can we show the number _____?</li> <li>● How can objects be counted?</li> <li>● How can numbers be sequenced?</li> <li>● Show the number _____ several ways.</li> </ul>

	<p>name.</p> <p><b>PK.CC.B.4b:</b> Recognize that the last number name said, tells the number of objects counted. Recognize the count remains the same regardless of the order or arrangement of the objects.</p> <p><b>PK.CC. B.5:</b> Represent a number by producing sets of objects with concrete materials, pictures, and or numerals. (0-5 Unit 2 and then to 10 Unit 5) Can correctly respond when asked "how many" after counting concrete objects.</p>	<ul style="list-style-type: none"> <li>• How does understanding four help us understand five?</li> </ul>
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<p>Unit 3: Shapes, Patterns and Positional Language (December/January)</p>	<p><b>PK.G.A.1:</b> Match like two dimensional shapes and correctly name the shapes regardless of their orientations or overall size.</p> <p><b>PK.G.A.2:</b> Group the shapes by like attributes and distinguish between examples and non-examples of various two dimensional shapes.</p> <p><b>PK.G.B.3:</b> Match and sort three dimensional shapes. <b>PK.G.B.4:</b> Use real world examples to describe three dimensional objects using correct mathematical vocabulary (cube, sphere, and cylinder)</p> <p><b>PK.G.B.5:</b> Compose and describe structures using three-dimensional shapes. Descriptions may include shape attributes, relative position, etc.</p>	<ul style="list-style-type: none"> <li>• How can objects be described and compared?</li> <li>• What real world objects if traced around can be used as examples of two dimensional shapes?</li> <li>• What real world objects can be used as examples of three dimensional shapes?</li> <li>• How can a pattern be represented? How can a pattern be extended?</li> </ul>
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<p>Unit 4: Measurement (February)</p>	<p><b>PK.MD.A.1:</b> Describe measurable attributes of objects, such as length or weight. <b>PK.MD.A.2:</b> Directly compare two objects with a measurable attribute in common, using words such as “bigger/smaller,” “longer/shorter,” “lighter/heavier,” or “taller/shorter”. Order up to 3 objects by a measureable attribute (e.g., biggest to smallest).</p>	<ul style="list-style-type: none"> <li>• What words can be used to describe and compare objects?</li> <li>• How can we measure and compare objects?</li> </ul>
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<p>Unit 5: Understanding Number Relationships 0-10 (March/April)</p>	<p><b>PK.CC.A.1:</b> Verbally count to 10 by ones and then develop rote counting to 20 by ones. <b>PK.CC.B.4:</b> Understand the relationship between numbers and quantities to 5, then to 10; connect counting to cardinality. <b>PK.CC.B.4a:</b> When counting objects 1-10, say the number names in standard order, pairing each object with one and only one number name. <b>PK.CC.B.4b:</b> Recognize that the last number name said, tells the number of objects counted. Recognize the count remains the same regardless of the order or arrangement of the objects. <b>PK.CC. B.5:</b> Represent a number by producing sets of objects with concrete materials, pictures, and or numerals. Can correctly respond when asked “how many” after counting concrete objects. <b>PK.CC.A.2:</b> Identify which number comes just after or just before a given number in the</p>	<ul style="list-style-type: none"> <li>• How can we show the number _____?</li> <li>• How can objects be counted?</li> <li>• How can numbers be sequenced? Show the number _____ several ways.</li> <li>• How does understanding four help us understand five?</li> </ul>

	<p>counting sequence to 10 with visual supports and manipulatives.</p> <p><b>PK.CC.A.4:</b> Recognize the number of objects in a set without counting (subitizing) using 1-5 objects. Use 1-3 objects of irregular or unfamiliar patterns and 4 or 5 objects with familiar patterns</p>	
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<p>Unit 6: Addition and Subtraction (May/June)</p>	<p><b>PK.OA.A.1:</b> Represent simple addition and subtraction problems with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, or verbal explanations, up to 5.</p> <p><b>PK.OA.A.2:</b> Decompose a quantity, less than or equal to 5, then to 10, into pairs in more than one way, e.g., by using objects or drawings.</p> <p><b>PK.OA.A.3:</b> For any quantity 1-5, use objects or drawings to find the quantity that must be added to make 5.</p>	<ul style="list-style-type: none"> <li>• How can numbers be combined and separated?</li> <li>• How can sums and differences be found in different ways?</li> <li>• How can we show the number _____?</li> <li>• Show the number _____ several ways.</li> <li>• How does understanding four help us understand five?</li> <li>• What strategies can be used to solve this problem and why?</li> </ul>