



# Arizona's College and Career Ready Standards Mathematics

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Crosswalks: AZCCRS / 2008  
Grade Kindergarten

**ARIZONA DEPARTMENT OF EDUCATION**  
High Academic Standards for Students  
State Board Approved June 2010  
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<b>Counting and Cardinality – (CC)</b>				
<b>CLUSTER</b>	<b>AZCCRS</b>	<b>ITEM DESCRIPTION</b>	<b>2008 PO</b>	<b>ITEM DESCRIPTION</b>
<b>Know number names and the count sequence.</b>	K.CC.A.1	Count to 100 by ones and by tens.	M00-S1C1-02	Count forward to 20 and backward from 10 with or without objects using different starting points. (Limited to counting forward to 20 by ones; includes counting backward from 10: extends beyond expectations of 2010 Mathematics Standards)
			M01-S1C1-02	Count forward to 100 and backward from 100 by 1s and 10s using different starting points, and count forward to 100 by 2s and 5s. (Extends beyond expectations of 2010 Mathematics Standards by including counting backward from 100 and counting forward by 2s and 5s)
	K.CC.A.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	M00-S1C1-02	Count forward to 20 and backward from 10 with or without objects using different starting points. (Limited to counting forward to 20; extends beyond expectations of 2010 Mathematics Standards by including counting backward from 10)
			M01-S1C1-02	Count forward to 100 and backward from 100 by 1s and 10s using different starting points, and count forward to 100 by 2s and 5s. (Extends beyond expectations of 2010 Mathematics Standards by including counting backward and counting forward by 2s, 5s, and 10s)
	K.CC.A.3	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).	M00-S1C1-01	Express whole numbers 0 to 20 using and connecting multiple representations.



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Counting and Cardinality – (CC)				
CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
Count to tell the number of objects.	K.CC.B.4	Understand the relationship between numbers and quantities; connect counting to cardinality.		
		a. 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.	M00-S1C1-01	Express whole numbers 0 to 20 using and connecting multiple representations.
			M00-S1C1-02	Count forward to 20 and backward from 10 with or without objects using different starting points. (Extends beyond expectations of 2010 Mathematics Standards by including counting backward from 10)
		b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	*	
	c. Understand that each successive number name refers to a quantity that is one larger.	M00-S1C1-03	Identify numbers which are one more or less than a given number to 20.	
	K.CC.B.5	Count to answer “how many?” questions about as many as 20 things arranged in a line, a 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.	M00-S1C1-01	Express whole numbers 0 to 20 using and connecting multiple representations. (Objects are counted but not in specific arrangements; includes multiple representations)



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<b>Counting and Cardinality – (CC)</b>				
<b>CLUSTER</b>	<b>AZCCRS</b>	<b>ITEM DESCRIPTION</b>	<b>2008 PO</b>	<b>ITEM DESCRIPTION</b>
<b>Compare numbers.</b>	K.CC.C.6	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.)	M00-S1C1-04	Compare and order whole numbers through 20. (Extends beyond expectations of the 2010 Mathematics Standards to 20 objects instead of 10 objects)
			M00-S1C3-01	Identify quantities to 20 as more or less than 5 or as more or less than 10. (Compares to benchmark numbers of 5 and 10 only)
	K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.	M00-S1C1-04	Compare and order whole numbers through 20. (Extends beyond expectations of the 2010 Mathematics Standards to 20 as written numerals)

Operations and Algebraic Thinking – (OA)				
CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
<b>Understand addition as putting together and adding to, and understand subtractions as taking apart and taking from.</b>	K.OA.A.1	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), and acting out situations, verbal explanations, expressions, or equations. (Drawings need not show details, but should show the mathematics in the problem. This applies wherever drawings are mentioned in the Standards.)	M00-S1C2-02	Develop and use multiple strategies to determine <ul style="list-style-type: none"> <li>• sums to 10 and</li> <li>• differences with minuends to 10.</li> </ul>
			M00-S1C2-03	Create word problems based on sums to 10 and differences with minuends to 10.
	K.OA.A.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	M00-S1C2-01	Solve contextual problems by developing, applying, and recording strategies with sums and minuends to 10 using objects, pictures, and symbols. (Includes subtraction also)
	K.OA.A.3	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 $5 = 4 + 1$ ).	M00-S1C2-02	Develop and use multiple strategies to determine <ul style="list-style-type: none"> <li>• sums to 10 and</li> <li>• differences with minuends to 10.</li> </ul> (Extends beyond expectations of the 2010 Mathematics Standards by including subtraction also)
			M00-S3C3-01	Record equivalent forms of whole numbers to 10 by constructing models and using numbers. (Extends beyond expectations of the 2010 Mathematics Standards by including subtraction also)
			M02-S2C3-01	List all possibilities in counting situations.

<b>Operations and Algebraic Thinking – (OA)</b>				
<b>CLUSTER</b>	<b>AZCCRS</b>	<b>ITEM DESCRIPTION</b>	<b>2008 PO</b>	<b>ITEM DESCRIPTION</b>
<b>Understand addition as putting together and adding to, and understand subtractions as taking apart and taking from.</b>	K.OA.A.4	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.	M00-S1C2-01	Solve contextual problems by developing, applying, and recording strategies with sums and minuends to 10 using objects, pictures, and symbols.
			M00-S3C3-01	Record equivalent forms of whole numbers to 10 by constructing models and using numbers. (Extends beyond expectations of the 2010 Mathematics Standards by including subtraction also)
			M02-S2C3-01	List all possibilities in counting situations.
	K.OA.A.5	Fluently add and subtract within 5.	M00-S1C2-01	Solve contextual problems by developing, applying, and recording strategies with sums and minuends to 10 using objects, pictures, and symbols. (Extends beyond the expectations of the 2010 Mathematics Standards by including within 10)

<b>Number and Operations in Base Ten – (NBT)</b>				
<b>CLUSTER</b>	<b>AZCCRS</b>	<b>ITEM DESCRIPTION</b>	<b>2008 PO</b>	<b>ITEM DESCRIPTION</b>
<b>Work with numbers 11-19 to gain foundations for place value.</b>	K.NBT.A.1	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$ ); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	M01-S1C1-01	Express whole numbers 0 to 100, in groups of tens and ones using and connecting multiple representations. (Extends beyond the expectations of the 2010 Mathematics Standards by including to 100)

Measurement and Data – (MD)				
CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
<b>Describe and compare measurable attributes.</b>	K.MD.A.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	M00-S4C1-02	Build, draw, compare, describe, and sort 2-dimensional figures (including irregular figures) using attributes. (Does not specify measurable attributes)
	K.MD.A.2	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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i>	M00-S4C1-02	Build, draw, compare, describe, and sort 2-dimensional figures (including irregular figures) using attributes. (Does not specify measurable attributes)
			M00-S4C4-01	Compare and order objects according to observable and measureable attributes.
			M00-S4C4-02	Use the attribute of length to describe and compare objects using non-standard units. (Limited to length only)
<b>Classify objects and count the number of objects in each category.</b>	K.MD.B.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. <i>(Limit category counts to be less than or equal to 10.)</i>	M00-S2C3-01	Sort, classify, count, and represent up to 20 objects and justify the sorting rule. (Extends beyond the expectations of the 2010 Mathematics Standards by including to 20)

Geometry – (G)				
CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
<b>Identify and describe shapes (squares, circle, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).</b>	K.G.A.1	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i> , <i>below</i> , <i>beside</i> , <i>in front of</i> , <i>behind</i> , and <i>next to</i> .	M00-S4C1-01	Identify, analyze, and describe circles, triangles, and rectangles (including squares) in different orientations and environments. (Does not include as many shapes or positional terminology)
			M03-S4C1-03	Identify and describe 3-dimensional figures including their relationship to real world objects: sphere, cube, cone, cylinder, pyramids, and rectangular prisms.
	K.G.A.2	Correctly name shapes regardless of their orientations or overall size.	M00-S4C1-01	Identify, analyze, and describe circles, triangles, and rectangles (including squares) in different orientations and environments. (Does not include as many shapes; only 2-D shapes)
			M03-S4C1-03	Identify and describe 3-dimensional figures including their relationship to real world objects: sphere, cube, cone, cylinder, pyramids, and rectangular prisms.
	K.G.A.3	Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).	M00-S4C1-02	Build, draw, compare, describe, and sort 2-dimensional figures (including irregular figures) using attributes. (Includes 2-D shapes only)
			M03-S4C1-03	Identify and describe 3-dimensional figures including their relationship to real world objects: sphere, cube, cone, cylinder, pyramids, and rectangular prisms. (Includes 3-D shapes only)

**Geometry – (G)**

<b>CLUSTER</b>	<b>AZCCRS</b>	<b>ITEM DESCRIPTION</b>	<b>2008 PO</b>	<b>ITEM DESCRIPTION</b>
<b>Analyze, compare, create, and compose shapes.</b>	K.G.B.4	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).	M00-S4C1-01	Identify, analyze, and describe circles, triangles, and rectangles (including squares) in different orientations and environments. (Includes 2-D shapes only)
			M00-S4C1-02	Build, draw, compare, describe, and sort 2-dimensional figures (including irregular figures) using attributes. (Includes 2-D shapes only)
			M03-S4C1-04	Describe and compare attributes of two- and three-dimensional figures.
	K.G.B.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	M00-S4C1-02	Build, draw, compare, describe, and sort 2-dimensional figures (including irregular figures) using attributes. (Builds and draws 2-D shapes only)
	K.G.B.6	Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"	M01-S4C1-03	Describe the results of composing and decomposing 2-dimensional figures. (Includes 2-D shapes only)

<b>Standards for Mathematical Practice – (MP)</b>				
<b>CLUSTER</b>	<b>AZCCRS</b>	<b>ITEM DESCRIPTION</b>	<b>2008 PO</b>	<b>ITEM DESCRIPTION</b>
	K.MP.1	Make sense of problems and persevere in solving them.	M00-S5C2-01	Identify the question(s) asked and any other questions that need to be answered in order to find a solution.
			M00-S5C2-02	Identify the given information that can be used to find a solution.
			M00-S5C2-03	Select from a variety of problem-solving strategies and use one or more strategies to arrive at a solution.
			M00-S5C2-04	Represent a problem situation using any combination of words, numbers, pictures, physical objects, or symbols.
			M00-S5C2-05	Explain and clarify mathematical thinking.
			M00-S5C2-06	Determine whether a solution is reasonable.
	K.MP.2	Reason abstractly and quantitatively.	M00-S5C2-05	Explain and clarify mathematical thinking.
	K.MP.3	Construct viable arguments and critique the reasoning of others.	M00-S5C2-05	Explain and clarify mathematical thinking.
	K.MP.4	Model with mathematics.	M00-S5C2-03	Select from a variety of problem-solving strategies and use one or more strategies to arrive at a solution.
			M00-S5C2-04	Represent a problem situation using any combination of words, numbers, pictures, physical objects, or symbols.
	K.MP.5	Use appropriate tools strategically.	M00-S5C2-03	Select from a variety of problem-solving strategies and use one or more strategies to arrive at a solution.
			M00-S5C2-06	Determine whether a solution is reasonable.
	K.MP.6	Attend to precision.	M00-S5C2-05	Explain and clarify mathematical thinking.
	K.MP.7	Look for and make use of structure.	M00-S5C2-05	Explain and clarify mathematical thinking.
K.MP.8	Look for and express regularity in repeated reasoning.	M00-S5C2-06	Determine whether a solution is reasonable.	



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Removed or Moved 2008 Performance Objectives				
CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
		REMOVED	M00-S1C1-05	Recognize and compare the ordinal position of at least five objects.
		REMOVED	M00-S2C1-01	Construct simple displays of data using objects or pictures.
		REMOVED	M00-S2C1-02	Ask and answer questions by counting, comparing quantities, and interpreting simple displays of data.
		REMOVED	M00-S3C1-01	Recognize, describe, extend, create, and record simple repeating patterns.
		REMOVED	M00-S3C1-02	Recognize, describe, extend, and record simple growing patterns.
	1.OA.7	MOVED TO GRADE 1	M00-S3C3-02	Compare expressions using spoken words and the symbol =.