

Crosswalk between 2011 Prekindergarten Standards in Mathematics and the *Guidelines for Preschool Learning Experiences*

Instructions: On the left side of the page (Column 1) are the new pre-kindergarten standards. The guideline(s) for curriculum and instruction from the *Guidelines for Preschool Learning Experiences* (2003; “Guidelines”) are listed on the right (Column 2).

To use this crosswalk, refer to the activities listed under the cited guideline the *Guidelines*. Some activities will be more appropriate to the new pre-k standard than some others. The new pre-k standards are related to the *Guidelines’* Mathematics section. Teachers are encouraged to embed these activities in larger curriculum themes and projects that are meaningful and interesting to the children in a particular class. See the end of this document for online links to relevant documents and other information.

Prekindergarten Standards, 2011 Mathematics	<i>Guidelines for Preschool Learning Experiences in Mathematics</i>
<i>Counting and Cardinality</i>	<i>Strand, number and page in Guidelines</i>
Know number names and the counting sequence MA.1. Listen to and say the names of numbers in meaningful contexts.	Number Sense: #1 (p. 13): <i>Listen to and say the names of numbers in meaningful contexts.</i>
MA.2. Recognize and name written numerals 0–10.	Number Sense: #1 (p. 13): <i>Listen to and say the names of numbers in meaningful contexts.</i> When possible, add written number labels during these activities and around the classroom.
Count to tell the number of objects. MA.3. Understand the relationship between numerals and quantities up to ten.	Number Sense: #1 (p. 13): <i>Listen to and say the names of numbers in meaningful contexts</i> #2 (p. 13): <i>Connect many kinds/quantities of concrete objects and actions to numbers.</i>
Compare numbers. MA.4. Count many kinds of concrete objects and actions up to ten, using one-to-one correspondence, and accurately count as many as seven things in a scattered configuration.	Number Sense: #1 (p. 13): <i>Listen to and say the names of numbers in meaningful contexts</i> #2 (p. 13): <i>Connect many kinds/quantities of concrete objects and actions to numbers.</i> Give children opportunities to count up to <u>seven</u> scattered objects.
MA.5. Use comparative language such as <i>more/less than, equal to</i> , to compare and describe collections of objects.	Number Sense: #4 (p. 14): <i>Use concrete objects to solve simple addition and subtraction problems using comparative language (more than, fewer than, same number of...)</i>

**Prekindergarten Standards, 2011
Mathematics**

**Guidelines and activities
in Mathematics**

<i>Operations and Algebraic Thinking</i>	<i>Strand, number and page in Guidelines</i>
<p>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</p> <p>MA.1. Use concrete objects to model real-world addition (putting together) and subtraction (taking away) problems up through five.</p>	<p>Number Sense</p> <p>#4 (p. 14): <i>Use concrete objects to solve simple addition and subtraction problems using comparative language (more than, fewer than, same number of...)</i></p> <p>#5 (p. 14): <i>Observe and manipulate concrete examples of whole and half.</i></p>
Measurement and Data	
<p>Describe and compare measurable attributes.</p> <p>MA.1. Recognize the attributes of length, area, weight, and capacity of everyday objects using appropriate vocabulary (e.g., <i>long, short, tall, heavy, light, big, small, wide, narrow</i>).</p>	<p>Patterns & Relations:</p> <p>#7 (p. 14): <i>Explore and describe a wide variety of concrete objects by their attributes.</i></p> <p>#8 (p. 14): <i>Sort, categorize, or classify objects by more than one attribute.</i></p> <p>Shapes and Spatial Sense:</p> <p>#10 (p. 16): <i>Investigate and identify materials of various shapes, using appropriate language.</i></p> <p>#12 (p. 16): <i>Listen to and use comparative words to describe the relationships of objects to one another.</i></p>
<p>MA.2. Compare the attributes of length and weight for two objects, including longer/shorter, same length; heavier/lighter, same weight; holds more/less, holds the same amount.</p>	<p>Measurement:</p> <p>#13 (p. 17): <i>Use estimation in meaningful ways and follow-up by verifying the accuracy of estimation.</i></p> <p>#14 (p. 17): <i>Use non-standards units to measure length, weight, and the amount of content of familiar objects.</i></p>
<p>Classify objects and count the number of objects in each category.</p> <p>MA.3. Sort, categorize, and classify objects by more than one attribute.</p>	<p>Patterns & Relations:</p> <p>#7 (p. 14): <i>Explore and describe a wide variety of concrete objects by their attributes.</i></p> <p>#8 (p. 14): <i>Sort, categorize, or classify objects by more than one attribute.</i></p>
<p>Work with money.</p> <p>MA.4. Recognize that certain objects are coins and that dollars and coins represent money.</p>	<p>Number Sense:</p> <p>#6 (p. 14): <i>Examine, manipulate, and identify familiar U.S. coins (penny, nickel, dime, quarter) in play activities.</i></p>

Prekindergarten Standards, 2011 Mathematics	Guidelines and activities in Mathematics
<i>Geometry</i>	<i>Strand, number and page in Guidelines</i>
Identify and describe shapes (squares, circles, triangles, rectangles). MA.1. Identify relative position of objects in space, and use appropriate language (e.g., <i>beside, inside, next to, close to, above, below, apart</i>).	Shapes and Spatial Sense: #11 (p. 16): <i>Explore and identify space, direction, movement, relative position, and size using body movements and concrete objects.</i>
MA.2. Identify various two-dimensional shapes using appropriate language.	Shapes and Spatial Sense: #10 (p. 16): <i>Investigate and identify materials of various shapes, using appropriate language.</i>
Analyze, compare, create, and compose shapes. MA.3. Create and represent three-dimensional shapes (ball/sphere, square box/cube, tube/cylinder) using various manipulative materials, such as popsicle sticks, blocks, pipe cleaners, pattern blocks, and so on.	Shapes and Spatial Sense: #10 (p. 16): <i>Investigate and identify materials of various shapes, using appropriate language</i>
	<p>Please note: The <i>Guidelines</i>' Mathematics section, Patterns and Relations #9 (p. 15) is referenced in 2011 MA Pre-k standards for ELA and Literacy, Reading & Literature strand, #8a.</p> <p>Data Collection and Analysis, #15 (p. 17) in the <i>Guidelines</i>, does not fit clearly into the 2011 standards.</p> <p>Activities listed under both of these mathematics guidelines (2003) can still be used for helping some children's understanding and mathematical development.</p>

For more information:

It is helpful to put the 2011 pre-kindergarten standards in mathematics in context. To do this, please review the *Massachusetts Curriculum Frameworks* (Pre-k – Grade 12): <http://www.doe.mass.edu/frameworks/current.html>. Particularly take note of the “Standards for Mathematical Practice” in the introductory pages of the framework.

Guidelines for Preschool Learning Experiences and the *Massachusetts Early Learning Guidelines for Infants and Toddlers*: <http://www.mass.gov/?pageID=edusubtopic&L=4&L0=Home&L1=Pre+K++Grade+12&L2=Early+Education+and+Care&L3=Curriculum+Guidelines+and+Assessment&sid=EOedu>

For curriculum ideas related to the new Curriculum Frameworks in Massachusetts: Massachusetts Teachers' Domain: <http://www.teachersdomain.org/>