

NYS Pre-K

Foundations for

Common Core

Aligned with Math

Developmental

Continuums

Children develop at different rates and each child is unique in his/her own development, growth, and acquisition of skills.¹

¹ NYS Pre-K Foundation for the Common Core
(Guiding Principles for the Development of the NYS Pre-K FCC, p. 8)



NYS Pre-K Foundations for Common Core Aligned with Math Developmental Continuums – Overview

- Provided for reference is the **NYS Pre-K Foundation for Common Core Aligned with Mathematics Developmental Continuum**.
 - Shaded areas show where the NYS Pre-K FCC benchmarks and benchmark indicators align with a specific point on the **Mathematical Developmental Continuum**.
- This document demonstrates that using the developmental continuum (Tab 7) assures that teachers meet all the NYS Common Core benchmarks.
- Teachers can also utilize this document to include NYS benchmarks on their lesson plans.

Numbers and Counting
NYSPFCC Aligned with Mathematics Developmental Continuum

NYS Prekindergarten Foundations for the Common Core: Counting and Cardinality	Child rote counts to 10 (S-2)							
	Child identifies "first" and "last" related to order or position							
	Child rote counts consistently 1-5 (S-2)							
	Child uses number words or rote counts (not necessarily without skipping a number)							
	Child explores numbers through the use of manipulatives and real life experiences							
	Child uses a word, sign or phrase to ask for "more" (S-1)							
	Child looks at, touches, or handles a single object (S-0)							
	Know number names and the count sequence							
	1. Count to 20							
	2. Represent a number of Objects with a written numeral 0-5							
	Count to Tell the number of Objects							
	3. Understand the relationship between numbers and quantities to 10, 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							
	b. Understand that the last number name said tells the number of objects counted							
	c. Regardless of their arrangement or order in which they were counted							
	d. Understand that each successive number name refers to a quantity that is one larger							

Numbers and Counting

NYS PFCCE Aligned with Mathematics Developmental Continuum

<p>NYS Prekindergarten Foundations for the Common Core: Counting and Cardinality</p>	<p>Child rote counts to 10 (S-2)</p>							
	<p>Child identifies "first" and "last" related to order or position</p>							
	<p>Child rote counts consistently 1-5 (S-2)</p>							
	<p>Child uses number words or rote counts (not necessarily without skipping a number)</p>							
	<p>Child explores numbers through the use of manipulatives and real life experiences</p>							
	<p>Child uses a word, sign or phrase to ask for "more" (S-1)</p>							
	<p>Child looks at, touches, or handles a single object (S-0)</p>							
	<p>4. Count to answer "how many?" questions about as many as 10 things arranged in a line, a rectangular array or a circle, or as any 5 things in a scattered configuration; given a number from 1-20, count out that many objects</p>		<p>Compare the Numbers</p>	<p>5. Identify whether the number of objects in one group is more, less, greater than, fewer and/or equal to the number of objects in another group, e.g. by using matching and counting strategies (up to 5 objects)</p>		<p>6. Identify "first" and "last" related to order or position</p>	<p>Operations and Algebraic Thinking: Understanding addition as adding to and understand subtraction as taking from.</p>	<p>1. Demonstrate an understanding of addition and subtraction by using objects, fingers, and responding to practical situations (if we have 3 apples and add 2 more, how many apples do we have all together?)</p>

Numbers and Counting
NYSPFCC Aligned with Mathematics Developmental Continuum

Child rote counts to 20								
Child says how many more or fewer are in one set than in another set (S-6)								
Child counts with 1:1 correspondence more than 10 objects and says the last number counted tells how many (S-5)								
Child identifies the number of objects in a group are "more," "less," "greater than," "less than," or "equal to" the number of objects in another group								
Child identifies four or more single-digit numbers (S-4)								
Child consistently counts (with 1:1 correspondence) up to 10 objects (S-3)								
Child counts 1:1, 5 objects knowing that the last number counted says "how many"								
NYS Prekindergarten Foundations for the Common Core: Counting and Cardinality	Know number names and the count sequence	1. Count to 20	2. Represent a number of Objects with a written numeral 0-5	Count to Tell the number of Objects	3. Understand the relationship between numbers and quantities to 10, 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	b. Understand that the last number name said tells the number of objects counted	c. Regardless of their arrangement or order in which they were counted
								d. Understand that each successive number name refers to a quantity that is one larger

Numbers and Counting
NYSPFCC Aligned with Mathematics Developmental Continuum

Child rote counts to 20					
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Child counts with 1:1 correspondence more than 10 objects and says the last number counted tells how many (S-5)					
Child identifies the number of objects in a group are "more," "less," "greater than," "less than," or "equal to" the number of objects in another group					
Child identifies four or more single-digit numbers (S-4)					
Child consistently counts (with 1:1 correspondence) up to 10 objects (S-3)					
Child counts 1:1, 5 objects knowing that the last number counted says "how many"					
NYS Prekindergarten Foundations for the Common Core: Counting and Cardinality	4. Count to answer "how many?" questions about as many as 10 things arranged in a line, a rectangular array or a circle, or as any 5 things in a scattered configuration; given a number from 1-20, count out that many objects	Compare the Numbers	5. Identify whether the number of objects in one group is more, less, greater than, fewer and/or equal to the number of objects in another group, e.g. by using matching and counting strategies (up to 5 objects) 6. Identify "first" and "last" related to order or position	Operations and Algebraic Thinking: Understanding addition as adding to and understand subtraction as taking from.	1. Demonstrate an understanding of addition and subtraction by using objects, fingers, and responding to practical situations (if we have 3 apples and add 2 more, how many apples do we have all together?

Numbers and Counting
NYSFCC Aligned with Mathematics Developmental Continuum

Child writes the numbers 1-10 (may have some reversals)						
Child represents a number of objects with a written number 0-5						
Child composes and/or decomposes a number in two or more ways (S-7)						
Child demonstrates an understanding of addition and/or subtraction						
Child begins writing numbers						
Child counts with 1:1 correspondence 20 object						
Child counts with 1:1 correspondence 15 objects						
NYS Prekindergarten Foundations for the Common Core: Counting and Cardinality	Know number names and the count sequence	Count to 20	Represent a number of Objects with a written numeral 0-5	Count to Tell the number of Objects	3. Understand the relationship between numbers and quantities to 10, 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
					b. Understand that the last number name said tells the number of objects counted	c. Regardless of their arrangement or order in which they were counted
						d. Understand that each successive number name refers to a quantity that is one larger

Numbers and Counting

NYS PFC Aligned with Mathematics Developmental Continuum

Child writes the numbers 1-10 (may have some reversals)				
Child represents a number of objects with a written number 0-5				
Child composes and/or decomposes a number in two or more ways (S-7)				
Child demonstrates an understanding of addition and/or subtraction				
Child begins writing numbers				
Child counts with 1:1 correspondence 20 objects				
Child counts with 1:1 correspondence 15 objects				
NYS Prekindergarten Foundations for the Common Core: Counting and Cardinality <p>4. Count to answer "how many?" questions about as many as 10 things arranged in a line, a rectangular array or a circle, or as any 5 things in a scattered configuration; given a number from 1-20, count out that many objects</p> <p>5. Identify whether the number of objects in one group is more, less, greater than, fewer and/or equal to the number of objects in another group, e.g. by using matching and counting strategies (up to 5 objects)</p> <p>6. Identify "first" and "last" related to order or position</p>	Compare the Numbers <p>Operations and Algebraic Thinking: Understanding addition as adding to and understand subtraction as taking from.</p> <p>1. Demonstrate an understanding of addition and subtraction by using objects, fingers, and responding to practical situations (if we have 3 apples and add 2 more, how many apples do we have all together?</p>			

Geometry and Spatial Awareness
NYS PFC Aligned with Mathematics Developmental Continuum

Child names a circle				
When asked, child points to a rectangle				
When asked, child points to a square				
When asked, child points to a triangle				
When asked, child points to a circle				
Child moves self or objects in response to a simple position or direction word (T-2)				
Child creates and builds shapes from components				
Child explores shapes and makes a picture using them				
Child fits an object into an opening that is the correct size) (T-1)				
Child tracks a moving object (T-0)				
NYS Prekindergarten Foundations for the Common Core:				
Geometry				
Identify and describe shapes (square, circle, triangle, rectangle)				
1. Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as top, bottom, up, down, in front of, behind, over, under, and next to				
2. Correctly name shapes regardless of size				

Geometry and Spatial Awareness

NYSPECC Aligned with Mathematics Developmental Continuum

Child describes three-dimensional shapes to compare their similarities and differences (T-7)				
Child names a pyramid (T-6)				
Child names a cylinder (T-6)				
Child names a cube (T-6)				
Child describes what makes a shape a shape (identifies shape attributes) (T-5)				
Child transforms (composes and decomposes) shapes into another shape and identifies the resulting shape (T-4)				
Child recognizes shapes in the environment (Child recognizes and names two-dimensional shapes - circle, triangle, square, rectangle) (T-3)				
Child names a rectangle (Child recognizes and names two-dimensional shapes - circle, triangle, square, rectangle) (T-3)				
Child names a square				
Child names a triangle				
NYS Prekindergarten Foundations for the Common Core: Geometry				
Identify and describe shapes (square, circle, triangle, rectangle)				
1. Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as top, bottom, up, down, in front of, behind, over, under, and next to				
2. Correctly name shapes regardless of size				

Measurement
NYS PFC Aligned with Mathematics Developmental Continuum

Child measures using non-standard unit		
Child directly compares or orders things based on measurable attributes using the word "same" and words with er and est endings (U-4)		
Child uses the terms "before" and "after"		
Child directly compares or orders things based on measurable attributes using the word same.		
Child uses terms long and short		
Child uses terms full and empty		
Child uses a measurement term - U3 (For example "big" and "little")		
Child nests or stacks three objects by size (U-2)		
Child fills a container (U-1)		
Child explores one or more objects with measurable attributes (U-0)		
	Describe and compare measurable attributes	<ol style="list-style-type: none"> 1. Identify measurable attributes of objects, such as length, and weight. Describe them using correct vocabulary (small, big, short, tall, empty, full, heavy, and light).

**NYS Prekindergarten Foundations for the Common Core:
Measurement and Data**

Measurement

NYS PFC Aligned with Mathematics Developmental Continuum

In conversation uses the measurement words of time: yesterday, today and tomorrow, accurately		
Child uses a scale to weigh objects using the terms heavier and lighter		
Child, on his/her own, correctly measures using a standard measuring unit and says what the unit measures (U-7)		
Child measures something using two different units and explains why the outcome is different. (U-6)		
Child fills a container 1/2 full and states that		
Child uses standard measuring procedures (U-5)		
NYS Prekindergarten Foundations for the Common Core: Measurement and Data	Describe and compare measurable attributes	<ol style="list-style-type: none">Identify measurable attributes of objects, such as length, and weight. Describe them using correct vocabulary (small, big, short, tall, empty, full, heavy, and light).

Algebra/Patterns and Sequences
NYS PFC Aligned with Mathematics Developmental Continuum

Child sees the pattern in a number line		
Child explains how increasing and decreasing patterns work (V-7)		
Child translates a written pattern into sounds, symbols, movements and physical objects on own (V-6)		
Child creates own complex pattern with 3 repeats (AABBAABBAABB, ABCABCABC) (V-5)		
Child creates a unique simple pattern with 3 repeats (V-4)		
Child recognizes, copies, or extends an existing simple pattern (V-3)		
Child adds the next object to continue a pattern		
Child copies a complex pattern (AABBAABB)		
Child copies a pattern (ABABAB)		
Child looks at 2 or more objects and says they are different and why		
Child sorts by 2 attributes		
Child looks at 2 or more objects and says they are the same and why		
Child lines up three or more objects one after another (V-2)		
Child gathers three or more objects (V-1)		
Child looks at or handles one object and then another (V-0)		
	NYS Prekindergarten Foundations for the Common Core: Operations and Algebraic Thinking Understanding Simple Patterns Duplicate and extend (what comes next?) simple patterns using concrete objects	



Data Analysis

NYSPFCC Aligned with Mathematics Developmental Continuum

Child poses a question of interest and collects and interprets information (data) to figure out the answer (W-7)		
Child applies information (data) from a representation (W-6)		
Child interprets information (data) from a representation (W-5)		
Child represents information (data) in abstract ways (W-4)		
Child represents information (data) in concrete ways (W-3)		
Child uses the comparison words more or less		
Child groups things into two or more collections (W-2)		
Child can generate a list (pg. 115, Mathematics HighScope)		
Child collects objects (W-1)		
Child shows interest in (looks at, touches, handles) one object from a collection of objects (W-0)		
Foundations for the Common Core: Measurement and Data	Sort objects and count the number of objects in each category	2. Sort objects into categories; count the numbers of objects in each category (limit category counts to be less than or equal to 10)

