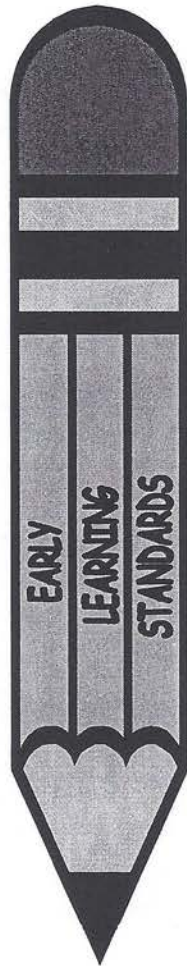


LOGICAL MATHEMATICS



for Pre-Kindergarten



CROSSWALK

Standard: Learn about numbers, numerical representation, and simple numerical operations

Indicators	NAEYC Performance Criteria	Head Start Performance Standards	ECERS	PA Academic Standards NCTM	Core Body of Knowledge
LM 1.1 Use counting and numbers as part of play and as a means for determining quantity					
LM 1.2 Count up to ten objects in meaningful context with emerging one-to-one correspondence	B5-d, B7-c	1304.21(a)(1)(iv) 1304.21(a)(3)(i)(B) 1304.21(a)(4)(i) 1304.21(a)(4)(iv) 1304.21(c)(1)(i) 1304.21(c)(1)(ii) 1304.21(c)(1)(vi)	#17, #22, #23, #25, #26, #35, #36	2.1, 2.2, 2.11 1	K1-C, K2-A, K2-B, K2-C, K2-D, K2-E, K2-F
LM 1.3 Understand number concepts, vocabulary, quantities and written numerals in meaningful ways					
LM 1.4 Use language to compare numbers of objects with terms such as more, less, greater than, fewer, equal to		Outcomes Framework – Mathematics: Number and Operations			
LM 1.5 Develop increased abilities to combine, separate and name “how many” concrete objects					
LM 1.6 Use ordinal number words to describe the position of objects (first, second, third)					
LM 1.7 Begin to solve problems using numbers					

Standard: Understand patterns, relations and functions

Indicators	NAEYC Performance Criteria	Head Start Performance Standards	ECERS	PA Academic Standards NCTM	Core body of Knowledge
LM 2.1 Recognize how things are alike (comparisons) and identify objects that belong together (classification)	B5-d, B7-c	1304.21(a)(1)(iv) 1304.21(a)(3)(i)(B) 1304.21(a)(4)(i) 1304.21(a)(4)(iv) 1304.21(c)(1)(i) 1304.21(c)(1)(ii) 1304.21(c)(1)(vi)	#17, #22, #23, #25, #26, #35, #36	2.8 2	K1-C, K2-A, K2-B, K2-C, K2-D, K2-E, K2-F
LM 2.2 Sort, categorize, classify and order objects by one attribute					
LM 2.3 Sort, categorize, classify and order objects by more than one attribute					
LM 2.4 Order objects by properties (e.g. from small to large, lightest to darkest)					
LM 2.5 Explain why and how objects are organized					
LM 2.6 Recognize, describe and extend patterns					
		Outcomes Framework – Mathematics: Geometry and Spatial Sense, Patterns and Measurement			

Standard: Develop concepts of space and shape

Indicators	NAEYC Performance Criteria	Head Start Performance Standards	ECERS	PA Academic Standards NCTM	Core Body of Knowledge
LM 3.1 Recognize, name, describe, build, draw, and compare two and three dimensional shapes	B5-d, B7-c	1304.21(a)(1)(iv) 1304.21(a)(3)(i)(B) 1304.21(a)(4)(i) 1304.21(a)(4)(iv) 1304.21(c)(1)(i) 1304.21(c)(1)(ii) 1304.21(c)(1)(vi)	#17, #22, #23, #25, #26, #35, #36	2.9, 2.10 3	K1-C, K2-A, K2-B, K2-C, K2-D, K2-E, K2-F
LM 3.2 Progress in ability to put together and take apart shapes					
LM 3.3 Determine whether or not two shapes are the same size and shape					
LM 3.4 Recognize geometric shapes in books, artwork, and the environment					
LM 3.5. Understand directionality, order, and positions of objects, using words such as up, down, over, under, top, bottom, inside, outside, in front of, behind					
LM 3.6 Show an awareness of symmetry					

Standard: Develop and use measurement concepts

Indicators	NAEYC Performance Criteria	Head Start Performance Standards	ECERS	PA Academic Standards NCTM	Core Body of Knowledge
LM 4.1 Demonstrate awareness of measurement attributes (length, volume, weight, area, time and temperature)	B5-d, B7-c	1304.21(a)(1)(iv) 1304.21(a)(3)(i)(B) 1304.21(a)(4)(i) 1304.21(a)(4)(iv) 1304.21(c)(1)(i) 1304.21(c)(1)(ii) 1304.21(c)(1)(vi)	#17, #22, #23, #25, #26, #35, #36	2.3, 2.4 4	K1-C, K2-A, K2-B, K2-C, K2-D, K2-E, K2-F
LM 4.2 Develop an awareness of seriation. Compare attributes such as length (shorter – taller), size (bigger – smaller), weight (heavier – lighter), in everyday situations		Outcomes Framework – Mathematics: Number and Operations			
LM 4.3 Use standard and non-standard measures in everyday situations					

Standard: Represent and interpret data					
Indicators	NAEYC Performance Criteria	Head Start Performance Standards	ECERS	PA Academic Standards NCTM	Core Body of Knowledge
LM 5.1 Gather information about themselves and their surroundings					
LM 5.2 Contribute data for simple graphs	B5-d, B7-c	1304.21(a)(1)(iv) 1304.21(a)(3)(i)(B) 1304.21(a)(4)(i) 1304.21(a)(4)(iv) 1304.21(c)(1)(i) 1304.21(c)(1)(ii) 1304.21(c)(1)(vi)	#17, #22, #23, #25, #26, #35, #36	<u>2.6.2.7</u> 5	K1-C, K2-A, K2-B, K2-C, K2-D, K2-E, K2-F
LM 5.3 Organize and display data on graphs using objects and picture					
LM 5.4 "Read" and interpret displays of data using words to compare (e.g. quantity, size, speed, and weight)					

Standard: Reason, predict and problem solve					
Indicators	NAEYC Performance Criteria	Head Start Performance Standards	ECERS	PA Academic Standards NCTM	Core body of Knowledge
LM 6.1 Make predictions based on observations and information	B5-d, B7-c	1304.21(a)(1)(iv) 1304.21(a)(3)(i)(B) 1304.21(a)(4)(i) 1304.21(a)(4)(iv) 1304.21(c)(1)(i) 1304.21(c)(1)(ii) 1304.21(c)(1)(vi)	#17, #22, #23, #25, #26, #35, #36	2.5 6, 7, 8, 9, 10	K1-C, K2-A, K2-B, K2-C, K2-D, K2-E, K2-F
		Outcomes Framework – Mathematics: Number and Operations			