Prekindergarten – Math Competencies

The purpose of this document is to clarify what students should know and be able to do each quarter (Q).

Competencies	Q 1	Q 2	Q 3	Q 4
C1 - Counting The student counts up to 10 objects and rote counts 1-30.	X	X	X	X
C2 - Adding To/Taking Away The student knows that when objects are added to a set, the total number of objects increases and when you take an object away from a set, the total number of objects decreases.			X	X
C3 - Geometry The student recognizes, describes and names characteristics of shapes.		X	X	X
C4 - Measurement The student verbally describes the length, area and weight of objects using nonstandard measurement tools	X	X	X	
C5- Sorts The student sorts objects that are the same and different.	X	X	X	X
C6 - Patterns The student recognizes and creates patterns		X	X	X
C7 – Data and Graphing The student participates in creating class graphs using pictures and or real objects.	X	X	X	X

Learning Progression for Competency 1: Counting

The student counts up to 10 objects and rote counts 1-30.

Developing	Progressing	Proficient
Recites number words in order 1-5.	Recites number words in order 1-10.	Recites number words in order 1-30.
Counts 1-4 objects, with one count per object.	Counts 1-6 objects, with one count per object.	Counts 1-10 objects, with one count per object.
Success Criteria for Proficient in Counting: **The student can:** • Say number words in order by starting from 1. • Place objects in a row and begin counting. • Move, touch, and or point to each object in a set while counting aloud.		

Learning Progression for Competency 2: Adding To/Taking Away

The student knows that when objects are added to a set, the total number of objects increases and when you take an object away from a set, the total number of objects decreases.

Developing	Progressing	Proficient
Uses objects or pictures to create and share verbal problem for adding up to 3.	Uses objects or pictures to create and share verbal problem for adding up to 4.	Uses objects or pictures to create and share verbal problem for adding up to 5.
Uses objects or pictures to create and share verbal problem for subtracting. 0 – 3 objects from a set.	Uses objects or pictures to create and share verbal problem for subtracting 0 – 4 objects from a set.	Uses objects or pictures to create and share verbal problem for subtracting 0 – 5 objects from a set.
Success Criteria for Proficient in Adding To/Taking Away: **The student can:** • Use a five frame to show work. • Add objects to a set and tell how many in all. • Take away objects from a set and say what is left.		

Learning Progression for Competency 3: Geometry
The student recognizes, describes and names characteristics of shapes.

Developing	Progressing	Proficient
Identifies and describes 2 out of 4 common shapes (circle, square, rectangle, triangle).	Identifies and describes 3 out of 4 common shapes (circle, square, rectangle, triangle).	Identifies and describes 4 common shapes (circle, square, rectangle, triangle).
Success Criteria for Proficient in Geometry: **The student can:** - Identify the number of corners and sides of a shape. - Identify shapes using sense of touch. - Use math vocabulary to describe shape pictures.		

Learning Progression for Competency 4: Measurement
The student verbally describes the length, area and weight of objects using nonstandard measurement tools.

Developing	Progressing	Proficient
Uses nonstandard measurement tools to measure the length of objects.	Uses measurement words to describe the height or length of objects.	Uses nonstandard measurement tools and measurement words to compare the height or length of objects.
Identifies things that happen with in the daily class schedule.	Identifies things that happened yesterday and is happening today.	Identifies events that happened yesterday, today and may happen in the future.
Compares the amount of space occupied by objects.	Uses mathematical language to describe the weight of objects.	Uses mathematical language to describe the weight of 2 or more objects being compared.
Success Criteria for Proficient in Measurement: **The student can:** - Place objects in order from shortest to tallest or tallest to shorter and identify the shortest and longest object. - Talk with friends about what happened yesterday, what is happening today, and what might happen tomorrow. - Fill 2 or more different sized containers and put containers in order from lightest to heaviest or heaviest to lightest.		

Learning Progression for Competency 5: Sorts

The student sorts objects that are the same and different.

Developing	Progressing	Proficient
Sorts objects by color and identifies colors being sorted.	Sorts objects by color and size and identifies the different colors and sizes being sorted.	Sorts a variety of objects and explains reasoning for the way objects were sorted.
Success Criteria for Proficient in Sorts: **The student can:** • Sort a variety of objects by color, size, and or shape. • Sort objects into groups and explain how everything is the group is similar. • Sort objects into groups and explain how the groups are different.		

Learning Progression for Competency 6: Patterns

The student recognizes and creates patterns.

Developing	Progressing	Proficient
Continues an ABAB pattern Creates an ABAB pattern.	Continues an AABBAABB pattern. Creates an AABBAABB pattern.	Continues an ABCABC pattern Creates an ABCABC pattern.
Success Criteria for Proficient in Patterns: **The student can:** • Identify repeating patterns. • Use buttons, beads, or color cubes to continue a given. • Create a repeated pattern using different colored blocks, bead, or buttons.		

Learning Progression for Competency 7: Data and Graphing

The student participates in creating class graphs using pictures and or real objects.

Developing	Progressing	Proficient
Participates in creation of class picture graphs.	Participates in creation of class picture graphs and answers questions associated with graph led by the teacher.	Participates in creation of class graphs and describes the data using mathematical language.

Success Criteria for Proficient in Data and Graphing:

The student can:

- Place concrete objects or pictures on a floor graph.
- Use mathematical language to describe data.
- Compares data on graphs or charts.