Pre-K - Kindergarten Mathematics Milestones

Pre-K

- Count to 10
- Use 1 to 1 correspondence
- Match quantity to numbers
- Name and describe attributes of shapes
- Recognize adding/moving objects as adding/subtracting
- Recognize simple patterns
- Understand more or less

Kindergarten

- Count objects by ones and tens to tell how many there are
- Count and group pennies
- Add and subtract up to 10 or less using drawings and objects
- Name geometric shapes
- Add and subtract up to 5 quickly and accurately
- Compare objects using words such as longer, shorter, bigger, and smaller

Family Engagement

How to help your student succeed in mathematics:

Make mathematics a part of your student's daily routine by:

- Counting
- Cooking
- Sorting
- Adding and subtracting
- Creating math stories to solve everyday problems
- Identifying shapes in everyday objects

Talk with the teacher about the problem-solving strategies and content your student is learning and practice those strategies at home.

Visit the *math4life* website at: wvde.us/math4life for information about:

- Resources for families
- Examples of fostering success in mathematics
- Information about what your student should master in each grade level
- Activities to help with mathematics fluency and understanding
- Links to videos and children's books that assist with counting, identifying patterns, and recognizing shapes

math4life UNITe with numeracy

What Students Will Learn

PRE-K - KINDERGARTEN

Sample Problems for Pre-K - Kindergarten

Pre-K: Creating a simple pattern

A student creates a simple pattern using shoes and socks.

The teacher asks, “Which item is first?”
The student says, “The sock is first.”

The teacher asks, “Which item is second?”

The student says, “The shoe is second.”

The teacher asks, “Which item is last?”
The student says, “The sock is last.”

The teacher asks, “Which item would come next to keep the pattern going?” The student says, “The shoe would come next.”

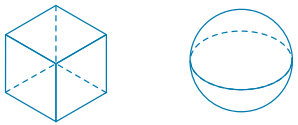
Kindergarten: Counting and comparing

A student creates rows of squares and circles as shown. The teacher asks, “Which row has more?”

The student says, “I grouped 1 square with 1 circle. There are more squares than circles since I had 4 extra squares.”

Identifying shapes

Cone *Hexagon* *Cylinder*



Cube *Sphere*

Mathematical Habits of Mind Thinking Skills for Life

MHM1: Make sense of problems and persevere to solve them.
Identify what the problem is asking and continue working until a solution is found.

MHM2: Reason abstractly and quantitatively.
Use reasoning to examine and connect numbers and ideas.

MHM3: Construct viable arguments and critique the reasoning of others.
Explore, explain, discuss, and share thinking and reasoning used to solve problems.

MHM4: Model with Mathematics.
Represent problems in multiple ways using drawings, objects, charts, and equations.

MHM5: Use appropriate tools strategically.
Use math tools that will help solve a problem such as blocks, manipulatives, rulers, protractors, drawings, etc.

MHM6: Attend to precision.
Use clear and accurate language, units, calculations, and symbols to solve problems and check the reasonableness of answers.

MHM7: Look for and make use of structure.
Look for patterns and structure to gain understanding and speed in problem solving. Ex. 4 + 7 and 7 + 4 both equal 11.

MHM8: Look for and express regularity in repeated reasoning.
Look for repeated patterns in calculations to make generalizations and solve problems.