

Kindergarten Math Curricula

The Kindergarten Mathematics Curriculum focuses on five process strands: problem solving, reasoning and proof, mathematical communication, connections, and representations. Interweaved into these process strands are five content strands: number sense and operations, algebra, geometry, measurement, and statistics and probability. The entwining of these content strands and process strands will allow our children to become mathematically proficient in conceptual understanding, procedural fluency and problem solving. Our district's Mathematics Curriculum has been aligned with the revised New York State Standards for Mathematics. <http://www.emsc.nysed.gov>

CONTENT STRANDS

Number Sense and Operations

- Count objects from 1-10 and be aware that the last counting word stated tells how many items in a collection
- Numerically label a data set of 1-5
- Verbally count by 1's to 20
- Verbally count backwards from 10
- Represent collections with a finger pattern up to 10
- Use informal pictures or symbols to represent a spoken number up to 10
- Write numbers 1-10 to represent a collection
- Visually determine how many more or less and match and count 1-10
- Use and understand verbal ordinal terms, first-tenth
- Solve and create verbal word problems using addition and subtraction
- Determine sums and differences by various means

Algebra

- Create patterns using attributes of color, size, or shape
- Recognize, describe, extend, and create patterns that repeat (i.e., ABABAB)

Geometry

- Describe characteristics and relationships of geometric objects
- Sort groups of objects by size and size order (increasing and decreasing)
- Explore vertical and horizontal orientation of objects
- Manipulate two and three dimensional shapes to explore symmetry
- Understand and use ideas such as over, under, above, below, on, beside, next to, and between

Measurement

- Name, discuss, and compare attributes of length (longer than, shorter than)
- Compare the length of two objects using nonstandard measurement
- Relate specific times of the day to activities and absence or presence of daylight

Statistics and Probability

- Collect, organize, and graph data in a group setting

- Help to construct simple pictographs for quantities up to 10 (each picture represents 1)
- Sort and organize objects by two attributes (i.e., color, size, or shape)
- Represent data using manipulatives
- Draw conclusions based on information using pictographs (more, less, and same amounts)