

First Grade Math Curricula

The first grade 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 to 100 by 1's
- Count to 50 by 5's
- Count to 20 by 2's
- Count back from 20 to 1
- Draw pictures to represent a number up to 20
- Identify that spacing of objects does not affect the quantity (conservation)
- Arrange objects in size order
- Compare and order whole numbers up to 100 (use vocabulary such as higher, lower, greater, or less to compare two numbers)
- Name the number before and after a given number, and between two given numbers up to 100 (with and without number line or grid)
- Verbally count by 1's from a given number other than 1
- Recognize odd and even numbers
- Learn addition and subtraction facts to 10
- Develop addition strategies such as doubles, doubles plus 1, and number families
- Develop strategies for selecting the appropriate operational and computational method in problem solving
- Learn place value
- Count money using pennies, nickels, and dimes up to 25 cents

Algebra

- Determine and discuss patterns in arithmetic (what comes next in a repeating pattern, using numbers or objects)

Geometry

- Use concrete materials to model special relationships
- Recognize, name, describe, create, sort, and compare two- and three-dimensional shapes
- Identify geometric shapes (square, circle, triangle, and rectangle) and recognize shapes in the environment
- Experiment with flips, slides, and turns of two dimensional objects
- Identify symmetry in two dimensional shapes

Measurement

- Tell time to the hour using digital and analog clocks
- Recognize time of day including morning, afternoon, and evening
- Know days of the week and months of the year in sequence
- Classify months of the year and connect them to seasons and other events
- Use everyday objects to measure vertical and horizontal lines
- Measure length using inches
- Know vocabulary and recognize coins (penny, nickel, dime, and quarter)

Statistics and Probability

- Practice estimation and predicting skills
- Collect, organize, and graph data
- Draw conclusions based on information using bar graphs and pictographs
- Create questions based on information using graphs
- Use a Venn diagram to sort and describe data
- Pose questions about themselves and their surroundings
- Practice tallying information