

Springfield Public Schools
SECOND GRADE

The intent of the Springfield R-12 Elementary mathematics Program is to explore, investigate, and understand the importance of mathematics through real-world experiences. In mathematics, students will acquire the knowledge and skills to solve problems, communicate, reason, create models and make connections.

The students will:

1. Understand concepts of **Numbers and Operations** including:
 - a. Read, write and compare whole numbers less than 1000. (MA1 1.10)
 - b. Recognize $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and the whole of a shape. (MA1 1.10)
 - c. Compose or decompose numbers by using a variety of strategies, such as using known facts, tens or landmark numbers to solve problems. (MA1 3.2, 3.3)
 - d. Classify numbers as odd or even. (MA1 1.10)
 - e. Skip count by 2s, 3s, 4s, 5s, 10s, 50s, and 100s. (MA1 1.10)
 - f. Represent a given situation involving addition or subtraction. (MA1 1.6, 1.10)
 - g. Recognize the numbers of a fact family and write the number sentences correctly. (MA5 1.6, 1.10)
 - h. Describe or notate the mental strategy used to compute addition or subtraction of whole numbers, including 2-digit numbers. (MA1 3.4, 4.1)
 - i. Demonstrate fluency with basic number relationships of addition and subtraction for sums up to 20. (MA1 1.6)
 - j. Apply and describe the strategy used to compute 2-digit addition and subtraction problems. (MA5 1.6, 1.10)
 - k. Determine appropriate estimates for quantities and computation. (MA1 3.3, 4.1)

2. Understand and use the concepts of **Algebraic Relationships** including:
 - a. Describe and extend simple numeric patterns and change from one representation to another. (MA4 1.6)
 - b. Describe how simple growing patterns are generated. (MA4 1.6, 3.5)
 - c. Classify objects by size, number or other attributes and states the sorting rule. (MA2, 1.8)
 - d. Represent a mathematical situation as an expression or number sentence. (MA4 1.6, 3.1)
 - e. Investigate commutative principal with whole numbers. (MA5 3.1)
 - f. Model situations that involve addition and subtraction of whole numbers, using pictures, objects or symbols. (MA1, MA4 1.6, 3.6)
 - g. Describe quantitative change, such as students growing taller. (MA4 4.1)

3. Describe, analyze and apply **Geometric and Spatial Relationships** including:

- a. Describe attributes and parts of 2- and 3-dimensional shapes (circle, triangle, rectangle, square, trapezoid, rhombus, sphere, rectangular prism, cube, cylinder, cone and pyramid. (MA2 1.6, 1.10)
 - b. Find and name locations with simple relationships on a map (coordinate systems). (MA2 3.3, 4.1)
 - c. Use manipulatives to model flips. (MA2 1.4)
 - d. Recognize and create shapes that have symmetry. (MA2 1.10)
 - e. Recognize and represent shapes from different perspectives. (MA2 3.6)
4. Understand and apply concepts of **Measurement** including:
- a. Select the appropriate unit and tool for the attribute being measured. (MA2 1.4, 3.7)
 - b. Tell time to the nearest half hour and quarter hour. (MA2 3.3)
 - c. **Count money to \$1.00.**
 - d. Use tools to measure (size, temperature, time, weight) to the nearest inch, centimeter, degree, hour half hour, and pound. (MA2 1.4, 3.3)
5. Recognize and understand concepts in **Data and Probability** including
- a. Pose questions and gather data about themselves and their surroundings. (MA3 1.2)
 - b. Sort and classify items according to their attributes and organize data about the item. (MA2, MA3 1.8)
 - c. Represent data using pictures and bar graphs. (MA3 1.8)