

Springfield Public Schools
THIRD 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 student will:

1. Understand concepts of **Numbers and Operations** including:
 - a. Read, write, and compare whole numbers up to 4 digits. (MA1 1.10)
 - b. Represent commonly used fractions: halves, thirds and fourths. (MA1 1.10)
 - c. Recognize equivalent representations for the same number and generate them by decomposing and composing numbers. (MA1 3.6)
 - d. Classify numbers by their characteristics, including even and odd. (MA1 1.10)
 - e. Represent a given situation involving multiplication. (MA 1 1.6, 1.10)
 - f. Describe the effects of adding and subtracting whole numbers as well as the relationship between the two operations. (MA1 3.4,4.1)
 - g. Apply the commutative and identity properties of addition to whole numbers. (MA5 1.6,1.10)
 - h. Describe, notate and apply the mental strategies used to compute addition and subtraction of whole numbers up to 3 digits. (MA1 3.4, 4.1)
 - i. Develop fluency with basic number relationships (12 X 12) of multiplication and division. (MA1 1.6)
 - j. Estimate and justify the results of addition and subtraction of whole numbers. (MA1 3.3, 4.1)

2. Understand and use the concepts of **Algebraic Relationships** including:
 - a. Extend geometric and numeric patterns to find the next term. (MA4 1.6)
 - b. Represent patterns using words, tables, or graphs. (MA4 3.6)
 - c. Represent a mathematical situation as an expression or number sentence. (MA4 1.6, 3.1)
 - d. Model problem situations, including multiplication, with objects or drawings. (MA4 1.6, 3.1)
 - e. Describe quantitative change. (MA4 1.4)

3. Analyze, describe, and apply the concepts of **Geometric and Spatial Relationships** including:
 - a. Compare 2- and 3-dimensional shapes by describing their attributes (circle, rectangle, rhombus, trapezoid, triangle, rectangular prism, cylinder, pyramid and square). (MA2 1.6, 1.10)
 - b. Predict the results of putting together or taking apart 2- and 3-dimensional shapes. (MA2 1.6, 4.1)
 - c. Describe location using common language and geometric vocabulary. (MA2 3.3, 4.1)
 - d. Determine the congruency of two objects through slides, flips and turns. (MA2 3.6)
 - e. Identify lines of symmetry in polygons. (MA2 1.10)
 - f. Recognize and represent shapes from different perspectives. (MA2 3.6)

4. Understand and apply the concepts of **Measurement** including
 - a. Identify and justify the appropriate unit of measure (linear, time, weight). MA2 3.1, 4.1)
 - b. Tell time to the nearest five minutes. (MA2 3.3)
 - c. Determine change from \$5.00 and add and subtract money values to \$5.00. (MA
 - d. Use a referent for measures to make comparisons and estimates. (MA2 1.6, 3.3)
 - e. Determine the perimeter of polygons. (MA2 1.10)

5. Apply the concepts of **Data and Probability** including
 - a. Design investigations to address a given question. (MA3 1.2)
 - b. Read and interpret information from line plots and graphs. (MA3 1.8)
 - c. Describe the shape of data and analyze it for patterns. (MA3 1.6)
 - d. Discuss events related to students' experiences as likely or unlikely. (MA3 3.3)