

## **Mathematics - Mastery Expectations Grade 2**

Listed expectations build upon previous grade level expectations. Review is essential and always necessary, especially at the beginning of the year. Our dedicated staff developed this mastery list to address the recommended guidelines set forth by the MA Department of Education.

### **Number Sense and Operations:**

- \* Name and write whole numbers to 1000, and identify place value of the digits, and order the numbers
- \* Identify and represent common fractions ( $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ) as parts of wholes, parts of groups, and numbers on the number line
- \* Compare whole numbers using terms e.g., less than, equal to, greater than ( $<$ ,  $=$ ,  $>$ )
- \* Identify the value of all U.S. coins, and \$1, \$5, \$10, and \$20 bills
- \* Demonstrate an understanding of key terms of addition and subtraction
- \* Demonstrate the inverse relationship between addition and subtraction to solve problems and check solutions
- \* Know addition facts (addends to eighteen) and related subtraction facts, and use them to solve problems
- \* Demonstrate the ability to add and subtract three-digit numbers accurately and efficiently
- \* Estimate, calculate, and solve problems involving addition and subtraction of two-digit numbers.

### **Patterns, Relations, and Algebra:**

- \* Identify, reproduce, describe, extend and create simple rhythmic, shape, size, number, color and letter repeating patterns
- \* Identify different patterns (2's, 5's, 10's, odds, evens) on the hundreds chart
- \* Skip count by fives from a multiple of 5; and twos and tens starting at any number
- \* Construct and solve open number sentences that have variables, e.g.,  $\_ + 7 = \_$
- \* Write number sentences using  $+$ ,  $-$ ,  $=$ ,  $>$ , and/or  $<$  to represent mathematical relationships in everyday situations
- \* Demonstrate more than one way to show the same amount, e.g., four quarters and 100 pennies make a dollar

### **Geometry:**

- \* Describe attributes and parts of two-and-three dimensional shapes, e.g., number of corners, edges, faces
- \* Recognize congruent shapes
- \* Identify shapes that have been rotated (turned), reflected (flipped), translated (slid), and enlarged using manipulatives.
- \* Identify symmetry in two-dimensional shapes
- \* Predict the results of putting shapes together and taking them apart

### **Measurement:**

- \* Tell time at quarter-hour intervals on analog and digital clocks
- \* Measure and compare common objects using metric and English units of length measurement, e.g., inch, centimeter
- \* Make estimates of measurement, including time, weight, and area

### **Data Analysis, Statistics, and Probability:**

- \* Organize, classify, represent and interpret data using tallies, charts, tables, bar graphs, pictographs, and Venn diagrams
- \* Draw conclusions and make educated guesses about a situation based on information gained from data