

# Skills and Concepts from Everyday Mathematics – Second Grade

B=Beginning, D=Developing, S=Secure

## NUMERATION

### Whole Numbers

- Read and write numbers to 20 (S)
- Read and write 2-digit numbers (S)
- Read and write 3-digit numbers (D)
- Read and write 4-digit numbers (B-D)
- Read and write ordinal numbers (B)
- Order numbers to 20 (S)
- Order 2-digit numbers (D-S)
- Order 3-digit numbers (B-D)
- Order 4-digit numbers (D)
- Order larger numbers (D)
- Compare numbers to 20 (S)
- Compare 2-digit numbers (D-S)
- Compare 3-digit numbers (B-D)
- Compare 4-digit numbers (D)
- Compare larger numbers (D)
- Compare numbers using the symbols  $<$ ,  $>$ , and  $+$  (D)
- Perform rote counting (D)
- Perform rational counting (S)
- Skip count by 2's, 5's, and 10's (S)
- Count by 25's (D)
- Count by 100's (B)
- Count using a calculator repeat key (B)
- Use Roman numerals (B)
- Identify even and odd numbers (D)
- Find equivalent names for numbers (D-S)
- Make and solve number-grid puzzles (B)
- Explore place value using a number grid (D-S)
- Identify place value in 2-digit numbers (S)
- Identify place value in 3-digit numbers (D-S)
- Identify place value in 4-digit numbers (D)
- Make exchanges among place values (B-D)
- Find complements of 10 (D)
- Display and read numbers on a calculator (D-S)

### Money and Decimals

- Use cents notation (S)
- Use dollars-and-cents notation (D-S)
- Use a calculator to compute money amounts (S)
- Identify equivalencies and make coin exchanges (D-S)
- Identify equivalencies and make coin/bill exchanges (D-S)
- Show money amounts with coins (S)
- Show money amounts with coins/bills (S)
- Compare money amounts using  $>$ ,  $<$ , and  $=$  symbols (D)
- Identify pennies and dimes as fractional parts of a dollar (D)
- Calculate the value of coin/bill combinations (D-S)
- Calculate the value of coin/bill combinations (D-S)
- Explore uses for decimals (B)

## Fractions

- Understand the meaning of fractions (D)
- Identify numerator and denominator (D)
- Shade and identify fractional parts of a region (D)
- Shade and identify fractional parts of a set (D)
- Find equivalent fractions (D)
- Compare and order fractions (B-D)
- Understand that the amount represented by a fraction depends on the size of the whole (ONE) (D)
- Explore uses of fractions (B)

## OPERATIONS AND COMPUTATION

### Addition and Subtraction

- Understand meaning of addition/subtraction (S)
- Solve addition/subtraction number stories (S)
- Make up addition/subtraction number stories (D)
- Find and use complements of 10 (D-S)
- Find/use complements of 100 (B)
- Solve change-to-more and change-to-less number stories/diagrams (D)
- Solve parts-and-total number stories/diagrams (D)
- Solve comparison number stories (D)
- Find patterns in addition/subtraction facts (S)
- Add/subtract using a number line (D-S)
- Add/subtract using a number grid (S)
- Add/subtract using a calculator (D-S)
- Find sums of even and odd numbers (D)
- Practice basic facts (D-S)
- Use mental arithmetic to add/subtract (D)
- Investigate relationships between addition and subtraction (D)
- Add/subtract multiples of 10 (D-S)
- Add/subtract multiples of 100 (D)
- Add/subtract money amounts/decimals (D)
- Add 3 or more 1-digit numbers (S)
- Add/subtract 2-digit numbers (D-S)
- Add 3 or more 2-digit numbers (D)
- Add/subtract 3- and 4-digit numbers (B-D)
- Investigate properties of addition/subtraction (B)
- Use an Addition/Subtraction Facts Table (D)
- Make change (D)
- Use estimation to add/subtract (D)
- Use addition/subtraction algorithms (B-D)

### Multiplication and Division

- Understand meaning of multiplication/division (B-D)
- Solve multiplication/division number stories (B-D)
- Make up multiplication/division number stories (B)
- Make difference and ratio comparisons (D)
- Model multiplication problems with arrays (D)
- Investigate properties of multiplication/division (D)
- Practice multiplication/division facts (B)
- Explore square numbers (B)

- Investigate relationships between multiplication and division (D)
- Multiply/divide using a number line (B)
- Find patterns in multiplication/division facts (B-D)
- Find patterns in multiples of 10, 100, and 1,000 (B-D)
- Use a Multiplication/ Division Facts Table (D)
- Use mental arithmetic to multiply/divide (B)

## PATTERNS, FUNCTIONS, AND ALGEBRA

### Visual Patterns

- Create patterns with 2-dimensional shapes (B)
- Sort and identify shapes/objects by attributes (D)
- Explore and extend visual patterns (D)
- Find patterns in the real world (D)
- Find common attributes in objects and people (D)

### Number Patterns

- Count up and back on a number grid (B-D)
- Investigate even and odd number patterns (D)
- Identify and use patterns on a number grid (D)
- Add and subtract using a number grid (S)
- Find patterns in addition and subtraction facts (S)
- Find patterns in multiplication/division facts (B-D)
- Find equivalent names for numbers (D-S)
- Investigate square numbers (B)
- Explore patterns in doubling numbers (D)

### Sequences

- Count up and back on a number line (D)
- Make/complete a number line (D)
- Count by 2's, 5's, and 10's (S)
- Count by numbers greater than 10 (D)
- Complete number sequences (D)
- Solve frames and arrows problems with one rule (D-S)
- Solve frames and arrows problems with two rules (D)
- Explore counting patterns using a calculator (B)

### Functions

- Solve "What's My Rule?" (function machine problems) (D)

### Number Sentences

- Use symbols  $=$ ,  $-$ ,  $+$  (S)
- Write/solve addition and subtraction number sentences (S)
- Write/solve number sentences with missing addends (D-S)
- Explore number properties (commutative, zero, and identity) (B)
- Use symbols  $\times$ ,  $\div$ , divide (B)
- Write and solve multiplication number sentences (B)
- Write and solve number sentences with missing factors (B)
- Write and solve division number sentences (B)
- Make up/solve number sentences involving parentheses (B)

## Inequalities

- Compare numbers  $<$ ,  $>$  symbols (D)

## GEOMETRY

### 2-Dimensional Shapes (Polygons)

- Identify 2-dimensional shapes (D-S)
- Create/extend designs with 2-dimensional shapes (D)
- Make 2-dimensional shapes on a geoboard (B-D)
- Record geoboard shapes on dot paper (B-D)
- Draw triangles and quadrilaterals (D)
- Explore shape relationships (B)
- Identify characteristics of 2-dimensional shapes (B-D)
- Compare 2-dimensional shapes (B)
- Construct 2-dimensional shapes (B)
- Solve 2-dimensional-shapes problems (B)
- Record designs with 2-dimensional shapes (B)
- Compare polygons and non-polygons (B)
- Complete shape patterns (B)
- Sort shapes by attributes (D)
- Explore similarities and differences among quadrilaterals (B)
- Form shapes by combining polygons (B-D)
- Classify and name polygons (B)

### 3-dimensional shapes

- Identify 3-dimensional shapes (B-D)
- Identify characteristics of 3-dimensional shapes (B)
- Construct 3-dimensional shapes (B)
- Explore similarities and differences among 3-dimensional shapes (B)
- Explore the relationship among the number of faces, edges, and vertices of pyramids (B)

### Symmetry

- Fold and cut symmetrical shapes (D)
- Create/complete a symmetrical design (D)
- Identify symmetrical figures ( )
- Identify lines of symmetry (D)
- Make symmetrical shapes on a geoboard (D)

### Points, Lines, and Angles

- Draw line segments with a straightedge (D)
- Identify parallel and nonparallel line segments (D)
- Identify and name points (B)
- Identify and name line segments (B)
- Model parallel lines on a geoboard (B)
- Draw parallel lines with a straightedge (B)

## MEASUREMENT AND REFERENCE FRAMES;

### MEASUREMENT

#### Length

- Estimate and compare distances (D)
- Estimate and compare lengths/heights of objects (B)
- Measure lengths with nonstandard units (D)
- Measure lengths with nonstandard units (D)
- Measure to the nearest foot (D)
- Measure to the nearest inch (S)
- Investigate the yard (D)
- Measure to the nearest centimeter (S)
- Investigate the meter (D)

- Solve length/height number stories (B)
- Measure to the nearest yard (D)
- Measure to the nearest  $\frac{1}{2}$  inch (D)
- Measure to the nearest  $\frac{1}{2}$  centimeter (B)
- Identify equivalent customary units of length (B)
- Identify equivalent metric units of length (D)
- Choose the appropriate unit of measure (D)
- Measure to the nearest decimeter (B)
- Investigate the mile (D)
- Investigate the kilometer (D)
- Solve distance number sentences (D)
- Name tools used to measure length (B)
- Measure to the nearest meter (B)
- Use a mileage map (B)

#### Capacity and Volume

- Compare capacities of containers (B)
- Name tools used to measure capacity (B)
- Identify customary units of capacity (B)
- Identify equivalent customary units of capacity (B)
- Identify metric units of capacity (B)
- Identify equivalent metric units of capacity (B)
- Measure capacities of irregular containers (B)
- Name tools used to measure volume (B)
- Find volume (B)
- Estimate volume (B)
- Choose the appropriate unit of measure (B)

#### Weight

- Use a pan balance (D)
- Solve weight number stories (B-D)
- Identify customary units of weight (B)
- Identify metric units of weight (B)
- Use a spring scale (B)
- Name tools used to measure weight (B)
- Choose the appropriate unit of measure (B)
- Choose the appropriate unit of measure (B)
- Estimate and compare weights (B)
- Use a bath scale (B)
- Identify equivalent customary units of weight (B)
- Identify equivalent metric units of weight (B)

## MEASUREMENT AND REFERENCE FRAMES

#### Perimeter and Area

- Investigate area (B)
- Estimate area (B)
- Name tools used to measure area (B)
- Find the perimeter of irregular shapes concretely (D)
- Find the perimeter of regular shapes concretely (D)
- Find the area of regular shapes concretely (D)
- Estimate perimeter (B)
- Compare perimeter and area (B)
- Find the area of irregular shapes concretely (D)

#### Money

- Recognize pennies and nickels (S)
- Use cents notation (S)
- Calculate the value of coin combinations (D-S)
- Recognize dimes (S)
- Use dollars-and-cents notation (D-S)

- Compare values of sets of coins (D)
- Recognize quarters (S)
- Show money amounts with coins (S)
- Show money amounts with coins/bills (S)
- Recognize dollars (D)
- Solve money number stories (D)
- Make change (D)
- Calculate the value of coin/bill combinations (D)
- Calculate the value of bill combinations (B)
- Identify equivalencies and make coin exchanges (D)
- Identify equivalencies and make bill exchanges (B-D)
- Add money amounts (D)
- Subtract money amounts (B-D)
- Estimate costs (B)
- Identify pennies and dimes as fractional parts of a dollar (D)

#### Time

- Use the calendar (S)
- Compare the hour and minute hands (S)
- Tell time on the hour (S)
- Investigate A.M. and P.M. (B-D)
- Tell time on the half-hour (S)
- Tell time on the quarter-hour (S)
- Use digital notation (S)
- Tell time to the nearest 5 minutes (D-S)
- Solve time number stories (D)
- Investigate 1-minute intervals (D)
- Calculate elapsed time (B)
- Show days/events on a timeline (B)
- Number and name the months of the year (D)
- Write today's date (D)
- Tell time to the nearest minute (D)
- Name tools used to measure time (B)
- Identify time equivalencies (D-S)
- Read time in different ways (D)

#### Temperature

- Use the Fahrenheit temperature scale (D)
- Use a thermometer (D)
- Solve temperature number stories (D)
- Use a weather map (B)
- Use the Celsius temperature scale (B)

## DATA AND CHANCE

### Collecting Data

- Collect data by counting (D)
- Collect data by interviewing (B)
- Collect data from print sources (B)
- Collect data from posters (F-S)
- Collect data from a map (B)
- Make predictions about data (B)
- Conduct a survey (B)

### Recording/Displaying Data

- Make a tally chart (S)
- Make a bar graph (B-D)
- Record data in a table/chart (B)
- Make a frequency table (B)
- Make a line plot (B)

**Evaluating Data**

- Find the range (B)
- Find the mode (B)
- Find the median (B)
- Compare two sets of data (B)
- Find the minimum/maximum of a data set (B)
- Read tables, graphs, and maps (B-D)
- Use data in problem solving (b)
- Summarize and interpret data (B)

**Probability and Chance**

- Predict Outcomes (B)

## **Edits to Grade 2 Grade Level Expectations**

### Social Studies

Remove: Explain the difference between the Puritans and Pilgrims, identify early leaders in Massachusetts and describe the daily life, education and work of the Pilgrims in the Massachusetts Bay Colony.

### Science and Technology

Add: Identify and provide examples of forms of matter and how they change.

Remove: Identify and describe the safe and proper use of tools and materials to construct simple structures.