

# Mathematics (K-2)

## Five Town Graduation Standards and Essential Outcomes

### Mathematics Graduation Standard 1

**NUMBER AND QUANTITY:** Reason and model quantitatively, using units and number systems to solve problems.

#### Common Core State Standards – Key

**CC** - Counting and Cardinality

**G** - Geometry

**MD** - Measurement and Data

**NBT** - Number and Quantity

**OA** - Operations and Algebraic Thinking

#### K Essential Outcomes

- A. Count by 1s and 10s to 100. (CC.1)
- B. Read and write numbers to 20. (CC.2)
- C. Represent a number of objects with a written numeral 0-20. (CC.3)
- D. Demonstrate a one-to-one correspondence when counting 0-20. (CC.4)
- E. Compare quantities and numerals 0-10 using terms “greater than, less than, equal to”. (CC.7)

#### 1st Essential Outcomes

- A. Identify, count, and write numbers to 120, starting at any number less than 120. (NBT.1)
- B. Count and write by 5s and 10s to 120. (NBT.1)
- C. Count and write by 2s to 20. (NBT.1)
- D. Recognize place value to 1s and 10s place. (NBT.2)
- E. Compare and order numbers to 100 using symbols  $<$ ,  $>$ , and  $=$ . (NBT. 3)
- F. Add and subtract multiples of 10 within 100. (NBT. 4)

#### 2nd Essential Outcomes

- A. Read and write numbers to 1000. (NBT.2)
- B. Count within 1000; skip-count by 5s, 10s, and 100s. (NBT.2)
- C. Compare and order numbers to 1000 using symbols  $<$ ,  $>$ ,  $=$ . (NBT.4)
- D. Read and write number to 1000 using base-10 numerals; write three digit numbers in expanded form ( $800+40+2 =842$ ). (NBT.3)
- E. Add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction (with and without regrouping). (NBT.5)

### Mathematics Graduation Standard 2

**ALGEBRA:** Interpret, represent, create, and solve algebraic expressions.

K Essential Outcomes

- A. Fluently add and subtract within 5 (sums or minuend  $\leq 5$ ). (OA.5)
- B. Solve addition and subtraction word problems and add/subtract within 10 by using objects or drawings. (OA.2)
- C. Read and understand number models using +, -, and =. (OA.3)
- D. Generate three part patterns. (Local)
- E. Read and write number sentences using +, -, and =. (OA.3)

1st Essential Outcomes

- A. Solve problems with unknown numbers to 20. (OA.4)
- B. Add three whole numbers whose sum is less than or equal to 20. (OA.2)
- C. Add and subtract facts to/within 10 fluently. (OA.6)
- D. Generate equivalent names for numbers to 20. (OA.6)

2nd Essential Outcomes

- A. Use addition and subtraction to solve one- and two- step word problems with unknown numbers to 100. (OA.1)
- B. Add and subtract facts to/within 20 fluently. (OA.2)
- C. Identify even and odd. (OA.3)
- D. Use addition to find the total number of objects arranged in rectangular arrays. (OA.4)

Mathematics Graduation Standard 3

**FUNCTIONS:** Interpret, analyze, construct, and solve linear, quadratic, and trigonometric functions.

K Essential Outcomes

N/A

1st Essential Outcomes

N/A

2nd Essential Outcomes

N/A

Mathematics Graduation Standard 4

**GEOMETRY:** Prove, understand, and model geometric concepts, theorems, and constructions to solve problems.

K Essential Outcomes

1st Essential Outcomes

2nd Essential Outcomes

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| <p>A. Identify circle, triangle, square, rectangle, and hexagon. (G.2)</p> <p>B. Identify shapes as two-dimensional ("flat") or three-dimensional ("solid"). (G.3)</p> <p>C. Compare using position words such as <i>above</i>, <i>below</i>, <i>beside</i>, <i>in front of</i>, <i>behind</i>, and <i>next to</i>. (G.1)</p> <p>D. Sort by color, shape, and size. (G.4)</p> <p>E. Compose simple shapes to form larger shapes. (G.6)</p> | <p>A. Identify and describe 2-D geometric shapes by attributes. (G.1)</p> <p>B. Identify and describes 3-D geometric shapes by attributes. (G.2)</p> <p>C. Identify whole, halves, fourths, and quarters. (G.3)</p> | <p>A. Recognize and model 2-D shapes having specified attributes. (G.1)</p> <p>B. Recognize and model 3-D shapes having specified attributes. (G.1)</p> <p>C. Divide and describe thirds, halves, fourths, and quarters. (G.3)</p> |
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**STATISTICS AND PROBABILITY:** Interpret, infer, and apply statistics and probability to analyze data and reach and justify conclusions.

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| <p>A. Compare weight and length. (MD.2)</p> <p>B. Measure using non-standard units. (MD.2)</p> <p>C. Identify penny, nickel, dime, and quarter. (Local)</p> <p>D. Read simple graphs. (Local)</p> | <p>A. Use length units to measure an object to the nearest whole number without gaps or overlaps. (MD.2)</p> <p>B. Tell and write time to the hour and half hour. (MD.3)</p> <p>C. Identify and give value of a penny, nickel, dime, and quarter. (Local)</p> <p>D. Give the value of combinations of pennies, dimes, and nickels. (Local)</p> <p>E. Identify days of the week and months of the year. (Local)</p> <p>F. Read and interpret data from simple graphs. (MD.4)</p> | <p>A. Measure and compare objects and distances to the nearest inch. (MD.1)</p> <p>B. Measure and compare objects and distances to the nearest centimeter. (MD.1)</p> <p>C. Read temperature on thermometers with 1 degree intervals. (Local)</p> <p>D. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. (MD.7)</p> <p>E. Solve problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. (MD.8)</p> <p>F. Read and interpret basic graphs, lists, and tables. (MD.10)</p> |
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G. Construct picture graph and bar graph.  
(MD.10)