ABOUT EUREKA MATH

Created by the nonprofit Great Minds, *Eureka Math* helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students’ mastery of math.

Teachers and students using *Eureka Math* find the trademark “Aha!” moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

ALIGNED

*Eureka Math* is the only curriculum found by EdReports.org to align fully with the Common Core State Standards for Mathematics for all grades, Kindergarten through Grade 8. Great Minds offers detailed analyses which demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

DATA

Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

FULL SUITE OF RESOURCES

As a nonprofit, Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum.

The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources
GRADE 2 MATHEMATICS

The Grade 2 South Carolina College- and Career-Ready Standards for Mathematics are fully covered by the Grade 2 *Eureka Math* curriculum. A detailed analysis of alignment is provided in the table below.

INDICATORS

- **Green** indicates that the South Carolina standard is fully addressed in *Eureka Math*.
- **Yellow** indicates that the South Carolina standard may not be completely addressed in *Eureka Math*.
- **Red** indicates that the South Carolina standard is not addressed in *Eureka Math*.
- **Blue** indicates there is a discrepancy between the grade level at which this standard is addressed in the South Carolina standards and in *Eureka Math*. 
### Mathematical Process Standards

#### 1: Make sense of problems and persevere in solving them.
- a. Relate a problem to prior knowledge.
- b. Recognize there may be multiple entry points to a problem and more than one path to a solution.
- c. Analyze what is given, what is not given, what is being asked, and what strategies are needed, and make an initial attempt to solve a problem.
- d. Evaluate the success of an approach to solve a problem and refine it if necessary.

### Aligned Components of *Eureka Math*

- Lessons in every module engage students in making sense of problems and persevering in solving them as required by this standard. This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:
  - G2 M4: Addition and Subtraction Within 200 with Word Problems to 100
  - G2 M7: Problem Solving with Length, Money, and Data
  - G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

#### 2: Reason both contextually and abstractly.
- a. Make sense of quantities and their relationships in mathematical and real-world situations.
- b. Describe a given situation using multiple mathematical representations.
- c. Translate among multiple mathematical representations and compare the meanings each representation conveys about the situation.
- d. Connect the meaning of mathematical operations to the context of a given situation.

### Aligned Components of *Eureka Math*

- Lessons in every module engage students in reasoning abstractly and quantitatively as required by this standard. This process standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules:
  - G2 M1: Sums and Differences to 100
  - G2 M2: Addition and Subtraction of Length Units
  - G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000
  - G2 M4: Addition and Subtraction Within 200 with Word Problems to 100
  - G2 M7: Problem Solving with Length, Money, and Data
### Mathematical Process Standards

**3: Use critical thinking skills to justify mathematical reasoning and critique the reasoning of others.**
- a. Construct and justify a solution to a problem.
- b. Compare and discuss the validity of various reasoning strategies.
- c. Make conjectures and explore their validity.
- d. Reflect on and provide thoughtful responses to the reasoning of others.

### Aligned Components of *Eureka Math*

Lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others as required by this standard. This process standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules:

- **G2 M2**: Addition and Subtraction of Length Units
- **G2 M3**: Place Value, Counting, and Comparison of Numbers to 1,000
- **G2 M4**: Addition and Subtraction Within 200 with Word Problems to 100
- **G2 M5**: Addition and Subtraction Within 1,000 with Word Problems to 100
- **G2 M6**: Foundations of Multiplication and Division
- **G2 M8**: Time, Shapes, and Fractions as Equal Parts of Shapes
### Mathematical Process Standards

#### 4: Connect mathematical ideas and real-world situations through modeling.

- a. Identify relevant quantities and develop a model to describe their relationships.
- b. Interpret mathematical models in the context of the situation.
- c. Make assumptions and estimates to simplify complicated situations.
- d. Evaluate the reasonableness of a model and refine if necessary.

#### 5: Use a variety of mathematical tools effectively and strategically.

- a. Select and use appropriate tools when solving a mathematical problem.
- b. Use technological tools and other external mathematical resources to explore and deepen understanding of concepts.

### Aligned Components of *Eureka Math*

- Lessons in every module engage students in modeling with mathematics as required by this standard. This process standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules:
  - G2 M4: Addition and Subtraction Within 200 with Word Problems to 100
  - G2 M6: Foundations of Multiplication and Division
  - G2 M7: Problem Solving with Length, Money, and Data

- Lessons in every module engage students in using appropriate tools strategically as required by this standard. This process standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules:
  - G2 M1: Sums and Differences to 100
  - G2 M2: Addition and Subtraction of Length Units
  - G2 M7: Problem Solving with Length, Money, and Data
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<tr>
<th>Mathematical Process Standards</th>
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<tr>
<td><strong>6: Communicate mathematically and approach mathematical situations with precision.</strong></td>
<td>Lessons in every module engage students in attending to precision as required by this standard. This process standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules:</td>
</tr>
<tr>
<td>a. Express numerical answers with the degree of precision appropriate for the context of a situation.</td>
<td>G2 M2: Addition and Subtraction of Length Units</td>
</tr>
<tr>
<td>b. Represent numbers in an appropriate form according to the context of the situation.</td>
<td>G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000</td>
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<tr>
<td>c. Use appropriate and precise mathematical language.</td>
<td>G2 M4: Addition and Subtraction Within 200 with Word Problems to 100</td>
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<td>d. Use appropriate units, scales, and labels.</td>
<td>G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100</td>
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<td>G2 M7: Problem Solving with Length, Money, and Data</td>
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<td>G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes</td>
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### Mathematical Process Standards

**7: Identify and utilize structure and patterns.**

- **a.** Recognize complex mathematical objects as being composed of more than one simple object.
- **b.** Recognize mathematical repetition in order to make generalizations.
- **c.** Look for structures to interpret meaning and develop solution strategies.

### Aligned Components of *Eureka Math*

Lessons in every module engage students in looking for and making use of structure as required by this standard. This process standard is analogous to the CCSSM Standards for Mathematical Practice 7 and 8, which are specifically addressed in the following modules:

- G2 M1: Sums and Differences to 100
- G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000
- G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100
- G2 M6: Foundations of Multiplication and Division
- G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes
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<tr>
<td><strong>Number Sense and Base Ten</strong></td>
<td>2.NSBT.1</td>
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<tr>
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<td>Understand place value through 999 by demonstrating that:</td>
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<tr>
<td></td>
<td>a. 100 can be thought of as a bundle (group) of 10 tens called a “hundred”;</td>
<td>G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000</td>
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<td></td>
<td>b. the hundreds digit in a three-digit number represents the number of hundreds, the tens digit represents the number of tens, and the ones digit represents the number of ones;</td>
<td>G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000</td>
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<td></td>
<td>c. three-digit numbers can be decomposed in multiple ways (e.g., 524 can be decomposed as 5 hundreds, 2 tens and 4 ones or 4 hundreds, 12 tens, and 4 ones, etc.).</td>
<td>G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000</td>
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<tr>
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<td>2.NSBT.2</td>
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<td></td>
<td>Count by tens and hundreds to 1,000 starting with any number.</td>
<td>G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000</td>
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<td>2.NSBT.3</td>
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</table>
|                              | Read, write, and represent numbers through 999 using concrete models, standard form, and equations in expanded form. | G2 M3 Topic C: Three-Digit Numbers in Unit, Standard, Expanded, and Word Forms  
G2 M3 Topic E: Modeling Numbers Within 1,000 with Place Value Disks  
G2 M3 Topic F: Comparing Two Three-Digit Numbers |
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<tr>
<td><strong>2.NSBT.4</strong></td>
<td>Compare two numbers with up to three digits using words and symbols (i.e., &gt;, =, or &lt;).</td>
<td>G2 M3 Topic F: Comparing Two Three-Digit Numbers</td>
</tr>
</tbody>
</table>
| **2.NSBT.5** | Add and subtract fluently through 99 using knowledge of place value and properties of operations. | G2 M1: Sums and Differences to 100  
G2 M4 Topic A: Sums and Differences Within 100  
G2 M7 Topic B: Problem Solving with Coins and Bills |
| **2.NSBT.6** | Add up to four two-digit numbers using strategies based on knowledge of place value and properties of operations. | G2 M4 Lesson 22: Solve additions with up to four addends with totals within 200 with and without two compositions of larger units. |
| **2.NSBT.7** | Add and subtract through 999 using concrete models, drawings, and symbols which convey strategies connected to place value understanding. | G2 M4: Addition and Subtraction Within 200 with Word Problems to 100  
G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100 |
| **2.NSBT.8** | Determine the number that is 10 or 100 more or less than a given number through 1,000 and explain the reasoning verbally and in writing. | G2 M3 Topic G: Finding 1, 10, and 100 More or Less than a Number  
G2 M4 Topic A: Sums and Differences Within 100  
G2 M4 Lesson 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten.  
G2 M5 Topic A: Strategies for Adding and Subtracting Within 1,000 |
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| **Algebraic Thinking and Operations** | **2.ATO.1** Solve one- and two-step real-world/story problems using addition (as a joining action and as a part-part-whole action) and subtraction (as a separation action, finding parts of the whole, and as a comparison) through 99 with unknowns in all positions. | G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100  
G2 M1 Lesson 5: Make a ten to add within 100.  
G2 M1 Lesson 8: Take from 10 within 100.  
G2 M4 Lesson 31: Solve two-step word problems within 100.  
G2 M6 Lesson 9: Solve word problems involving addition of equal groups in rows and columns. |
|                                 | **2.ATO.2** Demonstrate fluency with addition and related subtraction facts through 20.               | G2 M1: Sums and Differences to 100  
G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value.  
G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value. |
<p>|                                 | <strong>2.ATO.3</strong> Determine whether a number through 20 is odd or even using pairings of objects, counting by twos, or finding two equal addends to represent the number (e.g., 3 + 3 = 6). | G2 M6 Topic D: The Meaning of Even and Odd Numbers |
|                                 | <strong>2.ATO.4</strong> Use repeated addition to find the total number of objects arranged in a rectangular array with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. | G2 M6: Foundations of Multiplication and Division |</p>
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<td><strong>Geometry</strong></td>
<td><strong>2.G.1</strong></td>
<td>G2 M8 Topic A: Attributes of Geometric Shapes</td>
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<tr>
<td></td>
<td>Identify triangles, quadrilaterals, hexagons, and cubes. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.</td>
<td>G2 M8 Lesson 6: Combine shapes to create a composite shape; create a new shape from composite shapes.</td>
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<td><strong>2.G.2</strong></td>
<td>G2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division</td>
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<td>Partition a rectangle into rows and columns of same-size squares to form an array and count to find the total number of parts.</td>
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<td><strong>2.G.3</strong></td>
<td>G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes</td>
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<td>Partition squares, rectangles and circles into two or four equal parts, and describe the parts using the words <em>halves</em>, <em>fourths</em>, <em>a half of</em>, and <em>a fourth of</em>. Understand that when partitioning a square, rectangle or circle into two or four equal parts, the parts become smaller as the number of parts increases.</td>
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<tr>
<td><strong>Measurement and Data Analysis</strong></td>
<td><strong>2.MDA.1</strong></td>
<td>G2 M2: Addition and Subtraction of Length Units</td>
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</table>
|                       | Select and use appropriate tools (e.g., rulers, yardsticks, meter sticks, measuring tapes) to measure the length of an object. | G2 M7 Topic C: Creating an Inch Ruler  
G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units |
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| **2.MDA.2**  | Measure the same object or distance using a standard unit of one length and then a standard unit of a different length and explain verbally and in writing how and why the measurements differ. | G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units  
G2 M7 Lesson 18: Measure an object twice using different length units and compare; relate measurement to unit size. |
| **2.MDA.3**  | Estimate and measure length/distance in customary units (i.e., inch, foot, yard) and metric units (i.e., centimeter, meter). | G2 M2 Topic B: Measure and Estimate Length Using Different Measurement Tools  
G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units |
| **2.MDA.4**  | Measure to determine how much longer one object is than another, using standard length units. | G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units  
G2 M2 Lesson 9: Measure lengths of string using measurement tools, and use tape diagrams to represent and compare lengths.  
G2 M7 Lesson 19: Measure to compare the differences in lengths using inches, feet, and yards. |
| **2.MDA.5**  | Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences through 99 on a number line diagram. | G2 M2 Lesson 8: Solve addition and subtraction word problems using the ruler as a number line.  
G2 M7 Topic E: Problem Solving with Customary and Metric Units  
G2 M7 Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line. |
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<td><strong>2.MDA.6</strong></td>
<td>Use analog and digital clocks to tell and record time to the nearest five-minute interval using <em>a.m.</em> and <em>p.m.</em></td>
<td>G2 M8 Topic D: Application of Fractions to Tell Time</td>
</tr>
<tr>
<td><strong>2.MDA.7</strong></td>
<td>Solve real-world/story problems involving dollar bills using the $ symbol or involving quarters, dimes, nickels, and pennies using the ¢ symbol.</td>
<td>G2 M7 Topic B: Problem Solving with Coins and Bills</td>
</tr>
<tr>
<td><strong>2.MDA.8</strong></td>
<td>Generate data by measuring objects in whole unit lengths and organize the data in a line plot using a horizontal scale marked in whole number units.</td>
<td>G2 M7 Topic F: Displaying Measurement Data</td>
</tr>
<tr>
<td><strong>2.MDA.9</strong></td>
<td>Collect, organize, and represent data with up to four categories using picture graphs and bar graphs with a single-unit scale.</td>
<td>G2 M7 Topic F: Displaying Measurement Data</td>
</tr>
<tr>
<td><strong>2.MDA.10</strong></td>
<td>Draw conclusions from t-charts, object graphs, picture graphs, and bar graphs.</td>
<td>G2 M7 Topic A: Problem Solving with Categorical Data</td>
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