Georgia Mathematics

Grade 3

Mathematical Practices

0 Display perseverance and patience in problem-solving. Demonstrate skills and strategies needed to succeed in mathematics, including critical thinking, reasoning, and effective collaboration and expression. Seek help and apply feedback. Set and monitor goals. 3.MP

- 0.1 Make sense of problems and persevere in solving them. 3.MP.1
- 0.2 Reason abstractly and quantitatively. 3.MP.2
- 0.3 Construct viable arguments and critique the reasoning of others. 3.MP.3
- 0.4 Model with mathematics. 3.MP.4
- 0.5 Use appropriate tools strategically. 3.MP.5
- 0.6 Attend to precision. 3.MP.6
- 0.7 Look for and make use of structure. 3.MP.7
- 0.8 Look for and express regularity in repeated reasoning. 3.MP.8

Numerical Reasoning 3.NR.1

1 Use place value reasoning to represent, read, write, and compare numerical values up to 10,000 and round whole numbers up to 1,000.

- 1.1 Read and write multi-digit whole numbers up to 10,000 to the thousands using base-ten numerals and expanded form. 3.NR.1.1
- 1.2 Use place value reasoning to compare multi-digit numbers up to 10,000, using >, =, and < symbols to record the results of comparisons. 3.NR.1.2
- 1.3 Use place value understanding to round whole numbers within up to 1000 to the nearest 10 or 100. 3.NR.1.3

4 Represent fractions with denominators of 2, 3, 4, 6 and 8 in multiple ways within a framework using visual models. 3.NR.4

- 4.1 Describe a unit fraction and explain how multiple copies of a unit fraction form a non-unit fraction. Use parts of a whole, parts of a set, points on a number line, distances on a number line and area models. 3.NR.4.1
- 4.2 Compare two unit fractions by flexibly using a variety of tools and strategies. 3.NR.4.2
- 4.3 Represent fractions, including fractions greater than one, in multiple ways. 3.NR.4.3
- 4.4 Recognize and generate simple equivalent fractions. 3.NR.4.4

Patterning & Algebraic Reasoning

2 Use part-whole strategies to represent and solve real-life problems involving addition and subtraction with whole numbers up to 10,000. 3.PAR.2

2.1 Fluently add and subtract within 1000 to solve problems. 3.PAR.2.1

2.2 Apply part-whole strategies, properties of operations and place value understanding, to solve problems involving addition and subtraction within 10,000. Represent these problems using equations with a letter standing for the unknown quantity. Justify solutions. 3.PAR.2.2

3 Use part-whole strategies to solve real-life, mathematical problems involving multiplication and division with whole numbers within 100. 3.PAR.3

3.1 Describe, extend, and create numeric patterns related to multiplication. Make predictions related to the patterns. 3.PAR.3.1

3.2 Represent single digit multiplication and division facts using a variety of strategies. Explain the relationship between multiplication and division. 3.PAR.3.2

3.3 Apply properties of operations (i.e., commutative property, associative property, distributive property) to multiply and divide within 100. 3.PAR.3.3

3.4 Use the meaning of the equal sign to determine whether expressions involving addition, subtraction, and multiplication are equivalent. 3.PAR.3.4

3.5 Use place value reasoning and properties of operations to multiply one-digit whole numbers by multiples of 10, in the range 10-90. 3.PAR.3.5

3.6 Solve practical, relevant problems involving multiplication and division within 100 using part-whole strategies, visual representations, and/or concrete models. 3.PAR.3.6

3.7 Use multiplication and division to solve problems involving whole numbers to 100. Represent these problems using equations with a letter standing for the unknown quantity. Justify solutions. 3.PAR.3.7

Measurement & Data Reasoning

5 Solve real-life, mathematical problems involving length, liquid volume, mass, and time and analyze graphical displays of data to answer relevant questions. 3.MDR.5

- 5.1 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life. 3.MDR.5.1
- 5.2 Tell and write time to the nearest minute and estimate time to the nearest fifteen minutes (quarter hour) from the analysis of an analog clock. 3.MDR.5.2
- 5.3 Solve meaningful problems involving elapsed time, including intervals of time to the hour, half hour, and quarter hour where the times presented are only on the hour, half hour, or quarter hour within a.m. or p.m. only. 3.MDR.5.3
- 5.4 Use rulers to measure lengths in halves and fourths (quarters) of an inch and a whole inch. 3.MDR.5.4
- 5.5 Estimate and measure liquid volumes, lengths and masses of objects using customary units. Solve problems involving mass, length, and volume given in the same unit, and reason about the relative sizes of measurement units within the customary system. 3.MDR.5.5

Geometric & Spatial Reasoning

6 Identify the attributes of polygons, including parallel segments, perpendicular segments, right angles, and symmetry. 3.GSR.6

- 6.1 Identify perpendicular line segments, parallel line segments, and right angles, identify these in polygons, and solve problems involving parallel line segments, perpendicular line segments, and right angles. 3.GSR.6.1
- 6.2 Classify, compare, and contrast polygons, with a focus on quadrilaterals, based on properties. Analyze specific 3-dimensional figures to identify and describe quadrilaterals as faces of these figures. 3.GSR.6.2
- 6.3 Identify lines of symmetry in polygons. 3.GSR.6.3

7 Identify area as a measurable attribute of rectangles and determine the area of a rectangle presented in real-life, mathematical problems. 3.GSR.7

- 7.1 Investigate area by covering the space of rectangles presented in realistic situations using multiple copies of the same unit, with no gaps or overlaps, and determine the total area (total number of units that covered the space). 3.GSR.7.1
- 7.2 Determine the area of rectangles (or shapes composed of rectangles) presented in relevant problems by tiling and counting. 3.GSR.7.2
- 7.3 Discover and explain how area can be found by multiplying the dimensions of a rectangle. 3.GSR.7.3

8 Determine the perimeter of a polygon presented in real-life, mathematical problems. 3.GSR.8

8.1 Determine the perimeter of a polygon and explain that the perimeter represents the distance around a polygon. Solve problems involving perimeters of polygons. 3.GSR.8.1

8.2 Investigate and describe how rectangles with the same perimeter can have different areas or how rectangles with the same area can have different perimeters. 3.GSR.8.2