### Essential Standards

<table>
<thead>
<tr>
<th>3_M_1</th>
<th>Students will understand, analyze, and extend the properties of the base-ten number system.</th>
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<tbody>
<tr>
<td>3_M_2</td>
<td>Students will identify and apply concepts of measurement and data.</td>
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<tr>
<td>3_M_3</td>
<td>Students will understand, analyze, solve problems, and explain patterns in multiplication and division.</td>
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<tr>
<td>3_M_4</td>
<td>Students will understand, recognize, and compare fractions limited to fractions with denominators 2, 3, 4, 6, and 8.</td>
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<tr>
<td>3_M_5</td>
<td>Students will recognize, compare, analyze, and describe geometric shapes.</td>
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### Learning Targets

- **3_M_1:** Write and solve two-step problems involving variables using any of the four operations. (3.M.1.A: 3.OA.3) (CCSS: 3.OA.8)
- **3_M_2:** Tell and write time to the nearest minute. (3.M.2.G.1) (CCSS: 3.MO.1)
- **3_M_2.B:** Estimate time intervals in minutes. (3.M.2.G.2) (CCSS: 3.MO.1)
- **3_M_2.C:** Solve problems involving addition and subtraction of minutes. (3.M.2.G.3) (CCSS: 3.MO.1)
- **3_M_2.D:** Measure or estimate liquid volume and weight of objects. (3.M.2.G.4) (CCSS: 3.MO.2)
- **3_M_2.E:** Use the four operations to solve problems involving liquid volumes or weights given in the same units. (3.M.2.G.5) (CCSS: 3.MO.2)
- **3_M_2.F:** Calculate area by using unit squares to cover a plane figure with no gaps or overlaps. (3.M.2.G.6) (CCSS: 3.MO.5)
- **3_M_2.G:** Demonstrate that a brick or a new rectangle to find the area and multiplying the side lengths result in the same value. (3.M.2.G.7) (CCSS: 3.MO.7a)
- **3_M_2.H:** Multiply whole number side lengths to solve problems involving the area of rectangles. (3.M.2.G.8) (CCSS: 3.MO.7b)
- **3_M_2.I:** Label area measurements with squared units. (3.M.2.G.9) (CCSS: 3.MO.6)
- **3_M_2.J:** Find rectangular arrangements that can be formed for a given area. (3.M.2.G.10) (CCSS: 3.MO.7c)
- **3_M_2.K:** Decompose a rectangle into smaller rectangles to find the area of the original rectangle. (3.M.2.G.11) (CCSS: 3.MO.7d)
- **3_M_2.L:** Create frequency tables, ordered picture graphs, and bar graphs to represent a data set with several categories. (3.M.2.G.12) (CCSS: 3.MO.3)
- **3_M_2.M:** Solve one- and two-step problems using information presented in bar and/or picture graphs. (3.M.2.G.13) (CCSS: 3.MO.3)
- **3_M_2.N:** Create a line plot to represent data. (3.M.2.G.14) (CCSS: 3.MO.4)
- **3_M_2.O:** Use data shown in a line plot to answer questions. (3.M.2.G.15) (CCSS: 3.MO.4)
- **3_M_2.P:** Solve problems involving perimeter of polygons. (3.M.2.G.16) (CCSS: 3.MO.8)
- **3_M_2.Q:** Measure or estimate length. (3.M.2.G.17) (CCSS: 3.MO.2)
- **3_M_2.R:** Use the four operations to solve problems involving lengths. (3.M.2.G.18) (CCSS: 3.MO.2)
- **3_M_2.S:** Understand that rectangles can have equal perimeters but different areas, or rectangles can have equal areas but different perimeters. (3.M.2.G.19) (CCSS: 3.MO.8)

- **3_M_3.A:** Interpret products of whole numbers. (3.M.3.A.1) (CCSS: 3.OA.1)
- **3_M_3.B:** Describe in words or drawing a problem that illustrates a multiplication situation. (3.M.3.A.1) (CCSS: 3.OA.1)
- **3_M_3.C:** Interpret quotients of whole numbers. (3.M.3.A.1) (CCSS: 3.OA.2)
- **3_M_3.D:** Describe in words or drawing a problem that illustrates a division situation. (3.M.3.A.1) (CCSS: 3.OA.1)
- **3_M_3.E:** Apply properties of operations as strategies to multiply and divide. (3.M.3.A.2) (CCSS: 3.OA.3)
- **3_M_3.F:** Determine the unknown number in a multiplication or division equation relating three whole numbers. (3.M.3.A.2) (CCSS: 3.OA.4)
- **3_M_3.G:** Multiply and divide with numbers and results within 100 using strategies such as the relationship between multiplication and division or properties of operations. (3.M.3.A.3) (CCSS: 3.OA.7)
- **3_M_3.H:** Use multiplication and division within 100 to solve problems. (3.M.3.A.4) (CCSS: 3.OA.3)
- **3_M_3.I:** Demonstrate fluency with products within 100. (3.M.3.A.5) (CCSS: 3.OA.7)
- **3_M_3.J:** Multiply whole numbers by multiples of 10 in the range 10–90. (3.M.3.N.4A) (CCSS: 3.NS.8)

- **3_M_4.A:** Partition shapes into parts with equal areas, and express the area of each part as a unit fraction of the whole. (3.M.4.A.3) (CCSS: 3.G.2)
- **3_M_4.B:** Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts. (3.M.4.N.1A) (CCSS: 3.NF.1)
- **3_M_4.C:** Understand that when a whole is partitioned equally, a fraction can be used to represent a portion of the whole. (3.M.4.N.2A) (CCSS: 3.NF.3)
  - a. Describe the numerator as the number of pieces being considered.
  - b. Describe the denominator as the number of pieces that make the whole.
- **3_M_4.D:** Compare two fractions with the same numerator or denominator using the symbols >, =, or <, and justify the solution. (3.M.4.N.3A) (CCSS: 3.NF.3)
- **3_M_4.E:** Represent fractions on a number line. (3.M.4.N.3A) (CCSS: 3.NF.4)
  - a. Understand the whole is the interval from 0 to 1.
  - b. Understand the whole is partitioned into equal parts.
  - c. Understand a fraction represents the endpoint of the length of a given number of partitions from 0.
- **3_M_4.F:** Demonstrate that two fractions are equivalent if they are the same size, or the same point on a number line. (3.M.4.N.3A) (CCSS: 3.NF.5)
- **3_M_4.G:** Recognize and generate equivalent fractions using visual models, and justify why the fractions are equivalent. (3.M.4.N.3A) (CCSS: 3.NF.5)
- **3_M_4.H:** Explain why fraction comparisons are only valid when the two fractions refer to the same whole. (3.M.4.N.3A) (CCSS: 3.NF.3)

- **3_M_5.A:** Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category. (3.M.5.A.1) (CCSS: 3.G.1)
- **3_M_5.B:** Distinguish rhombuses and rectangles as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to these subcategories. (3.G.5.A.2) (CCSS: 3.G.1)

- **3_M_5.C:** Understand the concepts of parallel and perpendicular lines, and identify these attributes in two-dimensional figures. (3.M.5.C.1) (CCSS: 3.G.1)
- **3_M_5.D:** Determine the perimeter of a polygon given the lengths of its sides. (3.M.5.D.2) (CCSS: 3.G.1)
- **3_M_5.E:** Demonstrate the concept of area and apply it to calculate the area of a rectangle. (3.M.5.E.3) (CCSS: 3.G.1)
- **3_M_5.F:** Understand the concept of volume and apply it to calculate the volume of a right rectangular prism. (3.M.5.F.4) (CCSS: 3.G.1)