

Grade 3: Access Points

Algebraic Reasoning

1 Solve multiplication and division problems.

- 1 Apply the commutative property of multiplication to find a product of one-digit whole numbers. [MA.3.AR.1.AP.1](#)
- 2a Solve one- and two-step addition and subtraction real-world problems within 100. [MA.3.AR.1.AP.2A](#)
- 2b Solve one-step multiplication and division real-world problems. Multiplication may not exceed two single-digit whole numbers and their related division facts. [MA.3.AR.1.AP.2B](#)

2 Develop an understanding of equality and multiplication and division.

- 1 Explore division as multiplication with a missing factor using the relationship between multiplication and division. [MA.3.AR.2.AP.1](#)
- 2 Determine if multiplication or division equations with no more than three terms are true or false. Multiplication may not exceed two single-digit whole numbers and their related division facts. [MA.3.AR.2.AP.2](#)
- 3 Determine the unknown whole number in a multiplication or division equation, relating three whole numbers, with the product or quotient unknown (e.g., $2 \times 5 = \underline{\quad}$, $10 \div 5 = \underline{\quad}$). Multiplication may not exceed two single-digit whole numbers and their related division facts. [MA.3.AR.2.AP.3](#)

3 Identify numerical patterns, including multiplicative patterns.

- 1 Determine whether a whole number from 1 to 100 is even or odd. [MA.3.AR.3.AP.1](#)
- 2 Explore that a whole number is a multiple of each of its factors. Factors not to exceed single-digit whole numbers. [MA.3.AR.3.AP.2](#)
- 3 Extend a numerical pattern when given a one-step addition rule (e.g., when given the pattern 5, 10, 15, use the rule add 5 to extend the pattern).. [MA.3.AR.3.AP.3](#)

Data Analysis and Probability

1 Collect, represent and interpret numerical and categorical data.

- 1a Sort and represent categorical data (up to four categories) with whole-number values using tables, pictographs or bar graphs. Select appropriate title, labels and units. [MA.3.DP.1.AP.1A](#)
- 1b Explore representing numerical data with whole-number values using line plots. [MA.3.DP.1.AP.1B](#)

- 2a Interpret data with whole-number values represented with tables, pictographs or bar graphs to solve one-step “how many more” and “how many less” problems. [MA.3.DP.1.AP.2A](#)
 - 2b Interpret data with whole-number values represented with scaled pictographs or scaled bar graphs. For scaled pictographs, symbols used may only represent quantities of 2, 5 or 10 and only whole symbols may be used. For scaled bar graphs, intervals may only represent quantities of 2, 5 or 10. [MA.3.DP.1.AP.2B](#)
 - 2c Explore interpreting data with whole-number values represented with line plots. [MA.3.DP.1.AP.2C](#)
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Fractions

1 Understand fractions as numbers and represent fractions.

- 1 Explore unit fractions in the form $1/n$ as the quantity formed by one part when a whole is partitioned into n equal parts. Denominators are limited to 2, 3 and 4. [MA.3.FR.1.AP.1](#)
 - 2 Explore fractions, less than or equal to a whole, in the form of m/n as the result of adding the unit fraction $1/n$ to itself m times. Denominators are limited to 2, 3 and 4. [MA.3.FR.1.AP.2](#)
 - 3 Read and generate fractions, less than or equal to a whole, using standard form. [MA.3.FR.1.AP.3](#)
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2 Order and compare fractions and identify equivalent fractions.

- 1 Compare fractional numbers with the same denominator. Denominators are limited to 2, 3 and 4. [MA.3.FR.2.AP.1](#)
 - 2 Using a visual model, recognize fractions less than a whole that are equivalent to fractions with denominators of 2, 3 or 4 (e.g., $4/8$ is equivalent to $1/2$). [MA.3.FR.2.AP.2](#)
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Geometric Reasoning

Describe and identify relationships between lines and classify quadrilaterals.

- 1 Identify points, lines, line segments, perpendicular lines and parallel lines. Identify these in two-dimensional figures. [MA.3.GR.1.AP.1](#)
 - 2 Identify quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares and trapezoids. [MA.3.GR.1.AP.2](#)
 - 3 Identify line-symmetric two-dimensional figures. [MA.3.GR.1.AP.3](#)
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2 Solve problems involving the perimeter and area of rectangles.

- 1 Explore area as an attribute of a two-dimensional figure that can be measured by covering the figure with unit squares without gaps or overlaps. [MA.3.GR.2.AP.1](#)
- 2 Find the area of a rectangle with whole-number side lengths by counting unit squares. Explore that the area is the same as what would be found by multiplying the side lengths. [MA.3.GR.2.AP.2](#)
- 3 Solve mathematical and real-world problems involving the perimeter and area of rectangles with whole-number side lengths using a visual model. [MA.3.GR.2.AP.3](#)

- 4 Explore the perimeter and area of composite figures composed of two non-overlapping rectangles with whole-number side lengths. [MA.3.GR.2.AP.4](#)
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Measurement

1 Measure attributes of objects and solve problems involving measurement.

- 1a Select and use appropriate tools to measure the length (i.e., inches, feet, yards) of an object. [MA.3.M.1.AP.1A](#)
- 1b Explore selecting and using appropriate tools to measure liquid volume (i.e., gallons, quarts, pints, cups) and temperature in degrees Fahrenheit. [MA.3.M.1.AP.1B](#)
- 2a Solve one- and two-step addition and subtraction real-world problems within 100 with whole number lengths (i.e., inches, feet, yards), temperatures (i.e., degrees Fahrenheit) or liquid volumes (i.e., gallons, quarts, pints, cups). [MA.3.M.1.AP.2A](#)
- 2b Solve one-step multiplication and division real-world problems with whole number lengths (i.e., inches, feet, yards), temperatures (i.e., degrees Fahrenheit) or liquid volumes (i.e., gallons, quarts, pints and cups). Multiplication may not exceed two single-digit whole numbers and their related division facts. [MA.3.M.1.AP.2B](#)
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2 Tell and write time and solve problems involving time.

- 1 Using analog and digital clocks, express the time to the nearest five minutes using a.m. and p.m. appropriately. [MA.3.M.2.AP.1](#)
- 2 Solve for end time in one-step real-world problems when given start time and elapsed time in whole hours or minutes within the hour. [MA.3.M.2.AP.2](#)
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Number Sense and Operations

1 Understand the place value of four-digit numbers.

- 1 Read and generate numbers from 0 to 1,000 using standard form and expanded form. [MA.3.NSO.1.AP.1](#)
- 2 Compose and decompose three-digit numbers using hundreds, tens and ones. Demonstrate each composition or decomposition with objects, drawings, expressions or equations. [MA.3.NSO.1.AP.2](#)
- 3 Plot, order and compare whole numbers up to 1,000. [MA.3.NSO.1.AP.3](#)
- 4 Round whole numbers from 0 to 1,000 to the nearest 100 with visual support. [MA.3.NSO.1.AP.4](#)

2 Add and subtract multi-digit whole numbers. Build an understanding of multiplication and division operations.

- 1** Apply a strategy to add and subtract two two-digit whole numbers. **MA.3.NSO.2.AP.1**
- 2** Explore the concept of multiplication of two single-digit whole numbers using objects. **MA.3.NSO.2.AP.2**
- 3** Explore multiplying a one-digit whole number by 10. **MA.3.NSO.2.AP.3**
- 4** Explore the relationship between multiplication and division in order to multiply and divide. Multiplication may not exceed two single-digit whole numbers and their related division facts. **MA.3.NSO.2.AP.4**