

# Grade 3: Standards

## Number Sense and Operations

### 1 Understand the place value of four-digit numbers.

- 1 Read and write numbers from 0 to 10,000 using standard form, expanded form and word form. [MA.3.NSO.1.1](#)
- 2 Compose and decompose four-digit numbers in multiple ways using thousands, hundreds, tens and ones. Demonstrate each composition or decomposition using objects, drawings and expressions or equations. [MA.3.NSO.1.2](#)
- 3 Plot, order and compare whole numbers up to 10,000. [MA.3.NSO.1.3](#)
- 4 Round whole numbers from 0 to 1,000 to the nearest 10 or 100. [MA.3.NSO.1.4](#)

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

- 1 Add and subtract multi-digit whole numbers including using a standard algorithm with procedural fluency. [MA.3.NSO.2.1](#)
- 2 Explore multiplication of two whole numbers with products from 0 to 144, and related division facts. [MA.3.NSO.2.2](#)
- 3 Multiply a one-digit whole number by a multiple of 10, up to 90, or a multiple of 100, up to 900, with procedural reliability. [MA.3.NSO.2.3](#)
- 4 Multiply two whole numbers from 0 to 12 and divide using related facts with procedural reliability. [MA.3.NSO.2.4](#)

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## Algebraic Reasoning

### 1 Solve multiplication and division problems.

- 1 Apply the distributive property to multiply a one-digit number and two-digit number. Apply properties of multiplication to find a product of one-digit whole numbers. [MA.3.AR.1.1](#)
- 2 Solve one- and two-step real-world problems involving any of four operations with whole numbers. [MA.3.AR.1.2](#)

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### 2 Develop an understanding of equality and multiplication and division.

- 1 Restate a division problem as a missing factor problem using the relationship between multiplication and division. [MA.3.AR.2.1](#)
- 2 Determine and explain whether an equation involving multiplication or division is true or false. [MA.3.AR.2.2](#)
- 3 Determine the unknown whole number in a multiplication or division equation, relating three whole numbers, with the unknown in any position. [MA.3.AR.2.3](#)

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### **3 Identify numerical patterns, including multiplicative patterns.**

- 1 Determine and explain whether a whole number from 1 to 1,000 is even or odd. [MA.3.AR.3.1](#)
  - 2 Determine whether a whole number from 1 to 144 is a multiple of a given one-digit number. [MA.3.AR.3.2](#)
  - 3 Identify, create and extend numerical patterns. [MA.3.AR.3.3](#)
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## **Measurement**

### **1 Measure attributes of objects and solve problems involving measurement.**

- 1 Select and use appropriate tools to measure the length of an object, the volume of liquid within a beaker and temperature. [MA.3.M.1.1](#)
  - 2 Solve real-world problems involving any of the four operations with whole-number lengths, masses, weights, temperatures or liquid volumes. [MA.3.M.1.2](#)
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### **2 Tell and write time and solve problems involving time.**

- 1 Using analog and digital clocks tell and write time to the nearest minute using a.m. and p.m. appropriately. [MA.3.M.2.1](#)
  - 2 Solve one- and two-step real-world problems involving elapsed time. [MA.3.M.2.2](#)
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## **Fractions**

### **1 Understand fractions as numbers and represent fractions.**

- 1 Represent and interpret unit fractions in the form  $\frac{1}{n}$  as the quantity formed by one part when a whole is partitioned into  $n$  equal parts. [MA.3.FR.1.1](#)
  - 2 Represent and interpret fractions, including fractions greater than one, in the form of  $\frac{m}{n}$  as the result of adding the unit fraction  $\frac{1}{n}$  to itself  $m$  times. [MA.3.FR.1.2](#)
  - 3 Read and write fractions, including fractions greater than one, using standard form, numeral-word form and word form. [MA.3.FR.1.3](#)
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### **2 Order and compare fractions and identify equivalent fractions.**

- 1 Plot, order and compare fractional numbers with the same numerator or the same denominator. [MA.3.FR.2.1](#)
  - 2 Identify equivalent fractions and explain why they are equivalent. [MA.3.FR.2.2](#)
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## **Geometric Reasoning**

### **1 Describe and identify relationships between lines and classify quadrilaterals.**

- 1 Describe and draw points, lines, line segments, rays, intersecting lines, perpendicular lines and parallel lines. Identify these in two-dimensional figures. [MA.3.GR.1.1](#)
- 2 Identify and draw quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares and trapezoids. [MA.3.GR.1.2](#)
- 3 Draw line(s) of symmetry in a two-dimensional figure and identify line-symmetric two-dimensional figures. [MA.3.GR.1.3](#)

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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 by covering the figure with unit squares without gaps or overlaps. Find areas of rectangles by counting unit squares. [MA.3.GR.2.1](#)
- 2** Find the area of a rectangle with whole-number side lengths using a visual model and a multiplication formula. [MA.3.GR.2.2](#)
- 3** Solve mathematical and real-world problems involving the perimeter and area of rectangles with whole-number side lengths using a visual model and a formula. [MA.3.GR.2.3](#)
- 4** Solve mathematical and real-world problems involving the perimeter and area of composite figures composed of non-overlapping rectangles with whole-number side lengths. [MA.3.GR.2.4](#)

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## **Data Analysis and Probability**

### **1 Collect, represent and interpret numerical and categorical data.**

- 1** Collect and represent numerical and categorical data with whole-number values using tables, scaled pictographs, scaled bar graphs or line plots. Use appropriate titles, labels and units. [MA.3.DP.1.1](#)
- 2** Interpret data with whole-number values represented with tables, scaled pictographs, circle graphs, scaled bar graphs or line plots by solving one- and two-step problems. [MA.3.DP.1.2](#)