

# Essential Elements: Grade 4

## Operations and Algebraic Thinking 4.OA

### A Use the four operations with whole numbers to solve problems. M.4.OA.A

- 1 Demonstrate the connection between repeated addition and multiplication. M.EE.4.OA.1
- 2 Demonstrate the connection between repeated addition and multiplication. M.EE.4.OA.2
- 3 Solve one-step real-world problems using addition or subtraction within 100. M.EE.4.OA.3

### B Gain familiarity with factors and multiples. M.4.OA.B

- 4 Use an understanding of multiplication to show at least one way to determine a product. M.EE.4.OA.4

### C Generate and analyze patterns. M.4.OA.C

- 5 Use repeating patterns to make predictions. M.EE.4.OA.5

### D Multiply and divide within 100. M.4.OA.D

- 6 Not applicable.

## Number and Operations in Base Ten 4.NBT

### A Generalize place value understanding for multi-digit whole numbers. M.4.NBT.A

- 1 Not applicable. See M.EE.5.NBT.1
- 2 Compare whole numbers to 10 using symbols ( $<$ ,  $>$ ,  $=$ ). M.EE.4.NBT.2
- 3 Use place value understanding to generate estimates for realworld addition and subtraction problem situations within 30, using strategies such as mental math, benchmark numbers, compatible numbers, and rounding. M.EE.4.NBT.3

### B Use place value understanding and properties of operations to perform multi-digit arithmetic. M.4.NBT.B

- 4 Add and subtract two-digit whole numbers. M.EE.4.NBT.4
- 5 Not applicable. See M.EE.4.OA.4 and M.EE.5.NBT.5. M.EE.4.NBT.5
- 6 Not applicable. See M.EE.5.NBT.6. M.EE.4.NBT.6

## Number and Operations – Fractions 4.NF

### A Extend understanding of fraction equivalence. M.4.NF.A

- 1 Identify models of one half ( $\frac{1}{2}$ ) and one fourth ( $\frac{1}{4}$ ). M.EE.4.NF.1
- 2 Identify models of one half ( $\frac{1}{2}$ ) and one fourth ( $\frac{1}{4}$ ). M.EE.4.NF.2

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**B Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.** [M.4.NF.B](#)

- 3 Differentiate between whole and half. [M.EE.4.NF.3](#)
- 4 Not applicable. See [M.EE.4.OA.4](#) and [M.EE.5.NBT.5](#).

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**C Understand decimal notation for fractions and compare decimal fractions.** [M.4.NF.C](#)

- 5 Not applicable. See [M.EE.7.NS.2c-d](#).
- 6 Not applicable. See [M.EE.7.NS.2c-d](#).
- 7 Not applicable. See [M.EE.7.NS.2c-d](#).

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**Measurement and Data** [4.MD](#)

**A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.** [M.4.MD.A](#)

- 1 Identify the smaller measurement unit that comprises a larger unit within a measurement system including inches/foot, centimeter/meter, minutes/hour. [M.EE.4.MD.1](#)
- 2 Apply concepts of measurement. [M.EE.4.MD.2](#)
  - a Tell time using a digital clock. Tell time to the nearest hour using an analog clock. [M.EE.4.MD.2.A](#)
  - b Measure mass or volume using standard tools. [M.EE.4.MD.2.B](#)
  - c Use standard measurement to compare lengths of objects. [M.EE.4.MD.2.C](#)
  - d Identify coins including penny, nickel, dime, quarter and their values. [M.EE.4.MD.2.D](#)
- 3 Determine the area of a square or rectangle by counting units of measure (unit squares). [M.EE.4.MD.3](#)

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**B Represent and interpret data.** [M.4.MD.B](#)

- 4 Represent and interpret data on a picture or bar graph, given a model and a graph to complete. [M.EE.4.MD.4](#)

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**C Geometric measurement: understand concepts of angle and measure angles.** [M.4.MD.C](#)

- 5 Recognize angles in geometric shapes. [M.EE.4.MD.5](#)
  - 6 Compare angles as larger than, smaller than, or the same size as another angle. [M.EE.4.MD.6](#)
  - 7 Not applicable. See [M.EE.4.G.2](#).
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**Geometry** 4.G

**A Draw and identify lines and angles and classify shapes by properties of their lines and angles.** M.4.G.A

- 1 Recognize parallel lines and intersecting lines. M.EE.4.G.1
- 2 Describe the defining attributes of two-dimensional shapes. M.EE.4.G.2
- 3 Recognize that lines of symmetry partition shapes into equal areas. M.EE.4.G.3