

Mathematics: Grade 4

Operations and Algebraic Thinking OA

- 1** Use objects to model multiplication and division situations involving up to 5 groups with up to 5 objects in each group and interpret the results. LC.4.OA.A.1
- 2a** Determine how many objects go into each group when given the total number of objects and the number of groups where the number in each group or number of groups is not greater than 10. LC.4.OA.A.2A
- 2b** Solve multiplicative comparisons with an unknown using up to 2-digit numbers with information presented in a graph or word problem (e.g., an orange hat cost \$3. A purple hat cost 2 times as much. How much does the purple hat cost? [3 x 2 = p]). LC.4.OA.A.2B
- 3a** Solve or solve and check one or two step word problems requiring addition, subtraction or multiplication with answers up to 100. LC.4.OA.A.3A
- 3b** Solve problems or word problems using up to three digit numbers and addition or subtraction or multiplication. LC.4.OA.A.3B
- 4** Identify multiples for a whole number (e.g., 2= 2, 4, 6, 8, 10). LC.4.OA.B.4
- 5a** Generate a pattern when given a rule and word problem. (I run 3 miles every day, how many miles have I run in 3 days). LC.4.OA.C.5A
- 5b** Extend a numerical pattern when the rule is provided. LC.4.OA.C.5B
- 5c** Generate a pattern that follows the provided rule. LC.4.OA.C.5C

Numbers and Operations in Base Ten NBT

- 1** Compare the value of a number when it is represented in different place values of two 3 digit numbers. LC.4.NBT.A.1
- 2a** Compare multi-digit numbers using representations and numbers. LC.4.NBT.A.2A
- 2b** Write or select the expanded form for a multi-digit number. LC.4.NBT.A.2B
- 3** Use place value to round to any place (i.e., ones, tens, hundreds, thousands). LC.4.NBT.A.3
- 4** Solve multi-digit addition and subtraction problems up to 1000. LC.4.NBT.B.4
- 5a** Solve multiplication problems up to two digits by one digit. LC.4.NBT.B.5A

5b Solve a 2-digit by 1-digit multiplication problem using 2 different strategies. LC.4.NBT.B.5B

6 Separate a group of objects into equal sets when given the number of sets to find the total in each set with the total number less than 50. LC.4.NBT.B.6

**Number and Operations
—Fractions** NF

1 Determine equivalent fractions. LC.4.NF.A.1

2a Use =, <, or > to compare 2 fractions (fractions with a denominator or 10 or less). LC.4.NF.A.2A

2b Compare up to 2 given fractions that have different denominators. LC.4.NF.A.2B

3a Using a representation, decompose a fraction into multiple copies of a unit fraction (e.g., $\frac{3}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$). LC.4.NF.B.3A

3b Add and subtract fractions with like denominators of (2, 3, 4, or 8). LC.4.NF.B.3B

3c Add and subtract fractions with like denominators (2, 3, 4, or 8) using representations. LC.4.NF.B.3C

3d Solve word problems involving addition and subtraction of fractions with like denominators (2, 3, 4, or 8). LC.4.NF.B.3D

4 Multiply a fraction by a whole or mixed number. LC.4.NF.B.4

5 Find the equivalent decimal for a given fraction with a denominator of 10 or 100. LC.4.NF.C.5

6a Match a fraction with a denominator of 10 or 100 as a decimal ($\frac{5}{10} = .5$). LC.4.NF.C.6A

6b Read, write or select decimals to the tenths place. LC.4.NF.C.6B

6c Read, write or select decimals to the hundredths place. LC.4.NF.C.6C

7a Use =, <, or > to compare 2 decimals (decimals in multiples of 10). LC.4.NF.C.7A

7b Compare two decimals to the tenths place with a value of less than 1. LC.4.NF.C.7B

7c Compare two decimals to the hundredths place with a value of less than 1. LC.4.NF.C.7C

**Multiplication and
Division** MD

1a Complete a conversion table for length and mass within a single system. LC.4.MD.A.1A

1b Identify the appropriate units of measurement for different purposes in a real life context (e.g., measure a wall using feet, not inches). LC.4.MD.A.1B

2a Use the four operations to solve word problems involving distance, time, mass, and money and problems that require conversions from one unit to a smaller unit. [LC.4.MD.A.2A](#)

2b Select appropriate units for measurement (length, liquid volume, time, money). [LC.4.MD.A.2B](#)

3 Solve word problems using perimeter and area where changes occur to the dimensions of a figure. [LC.4.MD.A.3](#)

4a Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). [LC.4.MD.B.4A](#)

4b Solve problems involving addition and subtraction of fractions with like denominators by using information presented in line plots. [LC.4.MD.B.4B](#)

5 Recognize an angle in two-dimensional figures. [LC.4.MD.C.5](#)

6a Use a protractor or angle ruler to sketch a given angle. **LC.4.MD.C.6b** Measure right angles using a tool (e.g., angle ruler, protractor). [LC.4.MD.C.6A](#)

7 Given a picture of a right angle divided into two angles, find the measure of the missing angle when given the measure of one of the two angles. [LC.4.MD.C.7](#)

8a Match an accurate addition and multiplication equation to a representation. [LC.4.MD.D.8A](#)

8b Apply the formulas for area and perimeter to solve real world problems. [LC.4.MD.D.8B](#)

8c Apply the distributive property to solve problems with models. [LC.4.MD.D.8C](#)

Geometry [G](#)

1a Recognize a point, line and line segment, rays in two- dimensional figures. [LC.4.G.A.1A](#)

1b Recognize perpendicular and parallel lines in two-dimensional figures. [LC.4.G.A.1B](#)

1c Recognize an angle in two-dimensional figures. [LC.4.G.A.1C](#)

2a Classify two-dimensional shapes based on attributes (# of angles). [LC.4.G.A.2A](#)

2b Categorize angles as right, acute, or obtuse. [LC.4.G.A.2B](#)

2c Identify a right triangle. [LC.4.G.A.2C](#)

3 Recognize a line of symmetry in a figure. [LC.4.G.A.3](#)
