

4th Grade Math Grade Continuum of Learning

GRADE: 4th Content Area: Math

Standard: Geometry

Key Idea: Draw and identify lines and angles, and classify shapes by properties of their lines and angles

Required Skills:

- a.) I can draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- b.) I can separate shapes based on the type of lines it has
- c.) I can recognize a line of symmetry for a two-dimensional shape

Standard: Measurement and Data

Key Idea: Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Required Skills:

- a.) I know relative sizes of measurements including cm, g, lb, hr, min, etc.
- b.) I can use addition, subtraction, multiplication and division to solve world problems
- c.) I can apply the area and perimeter formulas for rectangles in real world problems

Standard: Represent and Interpret Data

Key Idea: Represent and Interpret Data

Required Skills:

a.) I can make a line plot to display a data set of measurements in fractions

Standard: Geometric Measurement

Key Idea: Recognize angles as geometric shapes that are formed wherever two rays meet

Required Skills:

- a.) I can measure an angle in reference to a circle
- b.) I can measure an angle in degrees using a protractor
- c) I can recognize angle measures as additive and solve addition and subtraction problems to find the unknown angle

Standard: Number and Operations in Base Ten

Key Idea: Generalize place value understanding for multi-digit whole numbers

Required Skills:

- a.) I can recognize that a digit in one place represents ten times what it represents to the right
- b.) I can read and write multi-digit whole numbers using standard, expanded, and word form.
- c.) I can use place value to round multi-digit whole numbers to any place.

Key Idea: Use place value understanding and properties of operations to perform multi-digit arithmetic.

Required Skills:

- a.) I can fluently add and subtract multi-digit whole numbers using the standard algorithm
- b.) I can multiply a whole number of up to four digits by one digit whole number, and two two-digit numbers
- c.) I can find whole number quotients and remainders with up to four-digit numbers

Standard: Number and Operations with Fractions

Key Idea: Extend understanding of fraction equivalence and ordering

Required Skills:

- a.) I can explain why a fraction is equal to another fraction by using visual models.
- b.) I can compare two fractions with different numerators and different denominators

Key Idea: Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers

Required Skills:

- a.) I can understand a fraction with a larger numerator is a sum of some smaller fractions
- b.) I can add and subtract fractions by joining and separating parts
 - a. I can separate a fraction into the sum of fractions with the same denominator in more than one way
 - b. I can add and subtract mixed numbers with like denominators
 - c. I can solve word problems involving adding and subtracting fractions with like denominators

Key Idea: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number

Required Skills:

- a.) I understand that a fraction as a multiple of another fraction
- b.) I can use multiples to multiply a fraction by a whole number
- c.) I can solve word problems involving multiplication of a fraction by a whole number by using models and equations

Key Idea: Understand decimal notation for fractions, and compare decimal fractions

Required Skills:

- a.) I can express a fraction with a denominator of 10 as an equivalent fraction with a fraction with a denominator of 100
- b.) I can convert decimals into fractions and fractions into decimals with denominators of 10 or 100
- c.) I can compare two decimals to hundredths by reasoning about their size

Standard: Operations and Algebraic Thinking

Key Idea: Use the four operations with whole numbers to solve problems

Required Skills:

- a.) I can multiply or divide to solve word problems involving comparison
- b.) I can solve multistep word problems using addition, subtraction, multiplication, and division

Key Idea: Gain familiarity with factors and multiples

Required Skills:

- a) I can find all factor pairs for a whole number between 1-100
- b) I recognize that a whole number is a multiple of each of its factors\
- c) I can determine if a whole number is prime or composite

Key Idea: Generate and Analyze patterns

Required Skills:

- a) I can generate a number or shape pattern that follows a given rule
- b) I can identify features of the pattern that are not explicitly in the rule itself