



CCPS ELEMENTARY MATHEMATICS

GRADE 4

Mathematics education in Calvert County Public Schools strives to build student skills in mathematical reasoning, strategic competence, conceptual understanding, procedural fluency, and a productive disposition. Grade 4 mathematics instruction is organized into five broad categories as indicated by the *Maryland College and Career-Ready Standards* with much of the content instruction focusing on three critical areas: (1) developing skill with multi-digit multiplication and dividing with multi-digit dividends, (2) understanding fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers, (3) analyzing and classifying geometric shapes based on attributes such as parallel sides, perpendicular sides, angle measures, and symmetry.

Operations and Algebraic Thinking

- Use the four operations with whole numbers to solve problems
- Gain familiarity with factors and multiples
- Generate and analyze patterns

Number and Operations in Base Ten

- Generalize place value understanding for multi-digit whole numbers
- Use place value understanding and properties of operations to perform multi-digit arithmetic

Number and Operations – Fractions

- Extend understanding of fraction equivalence and ordering
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers
- Understand decimal notation for fractions and compare fractions

Measurement and Data

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit
- Represent and interpret data
- Geometric measurement: angle concepts and measuring angles

Geometry

- Draw and identify lines and angles and classify shapes by properties of their lines and angles

Month-by-Month Pacing Overview

The topics listed for each month approximate when instruction in this area will occur.

| MONTH | TOPIC |
|------------|--|
| Aug | Introduction to the discourse-driven math classroom |
| Sep | Understand place value within a million Compare whole numbers Round whole numbers |
| Oct | Add & subtract whole numbers Applying multiplication & division Multiples & factors Patterns of mathematics |
| Nov | Model and Solve Multi-Step Problems Multiply by 1- and 2-digit numbers |
| Dec | Use multiplication to convert measurements Divide 3- and 4-digit numbers |
| Jan | Calculating area and perimeter Understand equivalent fractions Compare fractions |
| Feb | Add & subtract fractions (including mixed numbers) Fraction operations with a line plot |
| Mar | Multiply fractions by a whole number Relate fraction values to decimals (tenths and hundredths) |
| Apr | Compare decimal values Problem involving time and money Problems about length, liquid volume, mass and weight |
| May | Geometry Topics: points, lines, rays, angles Classify 2-dimensional figures based on attributes Symmetry |