

Math - 4th Grade

Content Overview:

Mathematics instruction at the 4th grade level focuses on three critical areas:

1. Developing an understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends as part of effectively and efficiently performing multi-digit arithmetic
2. Developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers
3. Understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, and particular angle measures.

By fourth grade the Mathematical Practices have been fully integrated into math instruction and students apply these thinking habits to understand mathematical concepts. Students develop fluency in addition and subtraction algorithms and develop algorithms for multiplication and division. Fourth grade students continue to develop problem solving skills, as well as develop a deep understanding of fraction equivalence and comparison.

Textbooks/Program:

1. Bridges Mathematics

Assessments:

1. MAP-NWEA
2. Bridges Unit Assessments
3. Ohio State Tests-Math (Spring)

Standards/Learning Goals

Ohio's Learning Standards in Mathematics are comprised of 5 domains: Operations and Algebraic Thinking, Number and Operations in Base Ten, Number and Operations-Fractions, Measurement and Data, and Geometry. The skills listed under each domain are areas of focus in 4th Grade.

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 less than or equal to 1,000,000.
- Use place value understanding and properties of operations to perform multi-digit arithmetic with whole numbers less than or equal to 1,000,000.

Number and Operations - Fractions

- Extend understanding of fraction equivalence and ordering limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. (Fractions need not be simplified).
- Understand decimal notation for fractions, and compare decimal fractions limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

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: understand concepts of angle and measure angles.

Geometry

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