

Grade 5
Mathematics

These are the expectations for a student by the end of Fifth Grade.

Numbers, Number Systems and Number Relationships

Identifies, writes, and expands numbers up to 1,000,000
Compares, orders and rounds whole numbers to 9 digits, mixed numbers, fractions and decimals to the hundredths
Finds, lists, and identifies all multiples of a whole number less than or equal to 100
Finds, lists, and identifies all factors through 100 of any given number.
Locates and identifies integers on a number that are greater than or equal to -20

Computation and Estimation

Demonstrates basic fact fluency for multiplication and division through the 12 times tables
Compares, adds, and subtracts fractions with like and unlike denominators through 16ths
Multiplies three and four digit numbers
Calculates quotients with and without remainders, using two and three digit divisors

Measurement and Estimation

Determines and compares elapsed time to the minute
Measures, using a ruler, to the nearest 1/8 of an inch or centimeter
Converts, adds, and subtracts linear measurements
Estimates, calculates, and compares perimeters, areas, and volumes of 2- and 3-dimensional shapes

Mathematical Reasoning and Connections

Utilizes strategies to solve problems and check reasonableness of answer
Represents common fractions as decimals, fractions and percents
Mathematical Problem Solving and Communication
Uses vocabulary, estimation and problem solving strategies to solve real world tasks and explains thinking

Statistics and Data Analysis

Organizes, displays, and interprets data using tallies, tables, charts, bar and circle graphs, pictographs, frequency charts, line plots and graphs.
Calculates mean, median, mode and range

Probability and Predictions

Expresses probabilities as fractions and/or decimals

Algebra and Functions

Writes the rule for a given pattern and/or illustrates and completes a given pattern
Solves a simple one-step algebraic equation

Geometry

Identifies, sorts, classifies and compares properties of quadrilaterals and triangles
Identifies and compares parts of right triangles, including right angles, acute angles, legs and hypotenuses
Draws and identifies a transformation such as a reflection, translation, and rotation
Identifies and locates points on the coordinate plane