

Mathematics Curriculum Guide

Grades 3 – 6

East Ramapo Central School District

Curriculum: Eureka Math² New York Next Generation

Published by Great Minds®

Grade 3

Grade 4

Grade 5

Grade 6

This guide provides an overview of the six learning modules your child will experience during the school year. Each module builds on the last, developing a deep and lasting understanding of mathematics.

Tap into your child's learning at greatminds.org

Grade 5 Mathematics

A Story of Fractions Are Numbers

Grade 5 completes students' work with the four operations across whole numbers, fractions, and decimals — bringing these three number systems together in one powerful year. Students multiply and divide fractions, extend decimal operations through the thousandths, and explore volume as a new three-dimensional concept. A focus on the coordinate plane connects number patterns to visual representations, preparing students for the algebraic thinking ahead in Grade 6.

What Your Child Will Learn This Year — Six Modules

Module 1

Place Value Concepts for Multiplication and Division with Whole Numbers

Students solidify their understanding of multi-digit multiplication and division, applying the standard algorithm to large numbers. They explore powers of 10, convert metric measurements, write and interpret numerical expressions (including parentheses), and solve complex, multi-step word problems. This module sets a strong foundation for the decimal and fraction work that follows.

Key Concepts: Powers of 10 and exponents • Multi-digit multiplication and division • Writing and interpreting expressions • Multi-step problem solving

Module 2

Addition and Subtraction with Fractions

Students master adding and subtracting fractions — including fractions with unlike denominators and mixed numbers. They interpret fractions as division, find equivalent fractions to create common units, and solve real-world problems. Line plots with fractional measurements help students connect fraction work to data analysis.

Key Concepts: Fractions as division • Adding and subtracting unlike fractions • Adding and subtracting mixed numbers • Line plots with fractional data

Module 3

Multiplication and Division with Fractions

Students extend multiplication and division to include fractions — one of the most important conceptual leaps of the elementary years. They multiply whole numbers by fractions, fractions by fractions, and explore division with unit fractions and whole numbers. They reason about the size of products and quotients and solve multi-step problems involving all fraction operations.

Key Concepts: Multiplying whole numbers by fractions • Multiplying fractions by fractions • Dividing with unit fractions • Multi-step fraction problem solving

Module 4

Place Value Concepts for Decimal Operations

Students apply place value understanding to decimal numbers all the way to the thousandths place. They add, subtract, multiply, and divide decimal numbers — including decimal by decimal — using place value reasoning and standard algorithms. They also convert metric and customary measurements involving decimals, and write and evaluate numerical expressions with decimals.

Key Concepts: Decimals to the thousandths • All four operations with decimals • Comparing and rounding decimals • Measurement conversions with decimals

Module 5

Addition and Multiplication with Area and Volume

Students explore two- and three-dimensional geometry. They classify quadrilaterals in a hierarchy based on properties, find areas of rectangles with fractional side lengths, and study volume — a brand-new concept. Students pack and build right rectangular prisms with unit cubes, apply volume formulas, and solve real-world problems involving area, perimeter, and volume.

Key Concepts: Classifying quadrilaterals by properties • Area with fractional side lengths • Understanding volume with unit cubes • Volume formulas and problem solving

Module 6

Foundations to Geometry in the Coordinate Plane

In this capstone module, students discover the coordinate plane as a powerful mathematical tool. They plot points, describe distances and directions, generate and graph number patterns, and connect patterns to real-world situations. Students graph and classify figures in the coordinate plane, draw lines of symmetry, and solve problems involving perimeter and area — all within the coordinate system.

Key Concepts: Plotting points in the coordinate plane • Generating and graphing number patterns • Classifying figures using coordinates • Real-world problems in the coordinate plane