

US Math Curriculum for Grades 5-10

Parent Information Guide

Overview

This guide provides a clear overview of what your child will learn in US mathematics education from grades 5 through 10. Our curriculum aligns with Common Core State Standards and prepares students for advanced mathematics, college, and career success.

Grade 5: Building Strong Foundations

Key Topics:

- Fractions: Addition, subtraction, multiplication, and division
- Decimals: Operations with decimals and place value
- Whole Numbers: Multi-digit multiplication and division
- Volume: Understanding and calculating volume of 3D shapes
- Coordinate Plane: Graphing points and solving problems

Grade 6: Introduction to Algebra

Key Topics:

- Ratios & Proportions: Understanding relationships
- Negative Numbers: Introduction to complete number system
- Fractions: Dividing fractions and rational numbers
- Basic Algebra: Writing and solving simple equations
- Statistics: Understanding data, graphs, distributions
- Geometry: Area, surface area, volume of shapes

Grade 7: Proportional Thinking & Linear Equations

Key Topics:

- Percentages: Discounts, interest, real-world applications
- Rational Numbers: All operations with +/- numbers
- Linear Equations: Multi-step equations and inequalities
- Geometry: Scale drawings, angles, area, volume
- Probability: Understanding chance and predictions
- Statistics: Analyzing data from samples/populations

Grade 8: Algebra Fundamentals

Key Topics:

- Linear Equations: Systems of equations and graphing
- Functions: Understanding function concepts
- Exponents: Powers and scientific notation
- Pythagorean Theorem: Right triangle calculations
- Geometry: Transformations, congruence, similarity
- Irrational Numbers: Square roots and pi
- Volume: Cylinders, cones, and spheres

Grade 9: Algebra I (High School)

Key Topics:

- Linear Functions: Graphing and analyzing relationships
- Systems of Equations: Solving multiple equations
- Quadratic Equations: Factoring, solving, graphing
- Exponential Functions: Growth and decay
- Polynomials: Operations and factoring
- Radical Expressions: Simplifying square roots
- Data Analysis: Statistics and probability

Grade 10: Geometry

Key Topics:

- Geometric Reasoning: Proofs and logical arguments
- Triangles: Congruence, similarity, special triangles
- Trigonometry: Sine, cosine, tangent
- Circles: Properties, equations, arcs, sectors
- Coordinate Geometry: Distance, midpoint, slope
- Transformations: Rotations, reflections, dilations
- 3D Geometry: Surface area and volume

How Our Program Supports Your Child

- * Aligned with US Common Core Standards
- * Individualized Learning adapted to pace
- * College & Career Ready preparation
- * Real-World Applications
- * Expert Tutors with deep knowledge
- * Regular Assessments to track progress

This curriculum guide is based on Common Core State Standards for Mathematics and standard high school mathematics progression in the United States.