Hillsdale College

Math

An American Classical Education

Grammar School (K–6)

Upper School (7-12)

KINDERGARTEN	Numbers to 100, Match, Sort, & Classify, Patterns, Shapes, Comparing Measurements & Numbers, Number Bonds, Addition & Subtraction, Time & Money, Mental Math & Math Facts
FIRST	*Continue:* Numbers to 100, Shapes, Number Bonds, Addition & Subtraction, Time & Money, Mental Math & Math Facts *Introduce:* Length, Fractions
SECOND	*Continue:* Shapes, Addition & Subtraction, Time & Money, Length, Fractions, Mental Math & Math Facts *Introduce:* Numbers to 1000, Weight, Multiplication & Division, Graphs
THIRD	*Continue:* Addition & Subtraction, Time & Money, Fractions, Multiplication & Division, Graphs, Mental Math & Math Facts *Introduce:* Numbers to 10,000, Tables, Measurement, Geometry
FOURTH	*Continue:* Addition & Subtraction, Multiplication & Division, Fractions, Measurement, Mental Math & Math Facts *Introduce:* Numbers to One Million, Multiples & Factors, Line Graphs & Plots, Decimals, Angles, Lines & Shapes
FIFTH	*Continue:* Multiplication & Division, Fractions & Decimals, Geometry, Mental Math & Math Facts *Introduce:* Numbers to One Billion, Expressions & Operations, Volume, Data Analysis & Graphs, Ratio, Rate & Percentage
SIXTH	*Continue:* Fractions & Decimals, Ratio & Percent, Area & Volume, Mental Math & Math Facts *Introduce:* Whole Numbers & Operations, Negative Numbers, Algebraic Expressions, Equations & Inequalities, Coordinates & Graphs, Data Handling
SEVENTH	*Continue:* Algebraic Expressions, Equations & Inequalities, Factors & Multiples, Ratio & Percent, Angles, Area & Volume, Data Handling *Introduce:* Integers & Rational Numbers, Sequences, Linear Graphs, Speed, Proportions, Probability
EIGHTH	**Algebra I** Properties & Sets of Numbers, Algebraic Expressions, Linear Equations & Inequalities, Polynomials, Quadratic Equations, Functions
NINTH	**Geometry** Lines and Angles; Triangles; Polygons; Quadrilaterals; Circles; Ratio, Proportion and Similar Figures; Coordinates; Spheres (**Euclid's principles, constructions, and proofs throughout*)
TENTH	**Algebra II** Polynomials; Linear and Quadratic Equations, Inequalities, and Systems; Properties and Graphs of Functions; Linear Functions; Exponential and Logarithmic Functions; Quadratic Functions; Polynomial Functions; Circles and their Equations
ELEVENTH	**Trigonometry/Pre-Calculus** Functions and Graphs: Properties, Linear and Quadratic Functions, Polynomial and Rational Functions, Exponential and Logarithmic Functions; Trigonometry: Ratios, Angles, Rotations and Radians, Trigonometric Identities, Trigonometric Functions; Sequences and Series; Counting and Probability; Preview of Calculus
TWELFTH	**Calculus** Derivatives and Limits; Integrals; Differentiation, Integration, and the Chain Rule; Maxima & Minima; Definite Integrals; Trigonometric Functions & Inverse Functions; Logarithmic & Exponential Functions; Differentials & the Mean Value Theorem; Geometric Integrals & Physical Applications of Integrals; Taylor's Theorem & Infinite Series

RETURN TO OVERVIEW