

MathCore Curriculum

MathCore course gives a solid foundation in the school Math in the respective grade. Concepts will be taught in detail by passionate and experienced teachers with examples and homework practice. Below is the curriculum for grades 1 to 8.

MathCore Grade 1 (MC1) Curriculum

Count, add and subtract: count on to add, count on to subtract, add & subtract in word problems, understand missing addends
Learn facts to 10: doubles and doubles plus one, number partners for 6 and 7, number partners for 8 and 9, number partners for 10, understand equal sign
Add and subtract to 20: understand teen numbers, sums greater than 10, make a ten to add, add three numbers, make a ten to subtract
Tens: understand tens, number chart, understand ten more & ten less, add & subtract tens
Tens and ones: understand tens & ones, compare numbers, add tens to any number, add tens & add ones, add & regroup
Shapes: understand shapes, put shapes together, break shapes into parts,
Measurement & Data: sort & count, compare data, order objects by length, compare lengths, measure length, tell time, count money

MathCore Grade 2 (MC2) Curriculum

Understand mental Math strategies, understand even & odd numbers, add using arrays, one-step two-step word problems with one-digit numbers

Add and subtract two-digit numbers, word problems with two-digit numbers

Compare, add, subtract three-digit numbers

Add several two-digit numbers

Measurement & Data: understand length and measurement tools, measurement with different units, estimate/compare/add/subtract lengths, reading & making line plots, draw & use bar graphs & picture graphs, understand/tell/write time, understand money and solve problems

Geometry: recognize and draw shapes, understand tiling in rectangles, understand halves/thirds/fourths in shapes

MathCore Grade 3 (MC3) Curriculum

Multiplication and Division: Understand multiplication, multiplication as grouping, multiplication as repeated addition, understand division, understand connection of multiplication and division, multiplication & division facts,
Patterns: Understand patterns
Place Value: use place value to round numbers, use place value to add and subtract, use place value to multiply
Word problems: one-step and two-step word problems using all four operations
Fractions: understand what a fraction is, fractions on number line, equivalent fractions, comparing fractions, use symbols to comparing fractions
Measurement & Data: tell & write time, solve problems with time, liquid volume, mass, scaled graphs, line plots
Geometry: understand area, multiply to find area, add areas, connect area and perimeter, properties of shapes, quadrilaterals, divide shapes into parts with equal areas

MathCore Grade 4 (MC4) Curriculum

Reinforcing Operations in Base Ten - place value, compare whole numbers, reinforce add/subtract whole numbers, round whole numbers
Reinforce multiplication, divisions, word problems with multiplication and division
Multiples and factors, number and shape patterns, multi-step problems
Equivalent fractions, compare fractions, add and subtract of fractions, add and subtract mixed numbers, multiply fractions fractions as tenths and hundredths, relate decimals and fractions, compare decimals
Measurement and data - convert measures, time and money, length, liquid volume, mass, perimeter and area, line plots,
Geometry - understand angles, draw angles, add and subtract with angles

MathCore Grade 5 (MC5) Curriculum

Reinforcing Operations in Base Ten - place value, powers of ten, decimal numbers and decimal operations

Fractions, fraction operations, fractions as division, multiply fractions using area model, division with unit fractions, understand multiplication as scaling

Algebraic thinking - write and evaluate expressions, analyze patterns and relationships

Measurement & Data - convert measurement units, solve problems with conversions, line plots and data

Geometry - understand volume, volume using unit cubes, volume using formulas, volume using composite figures

Geometry - understand coordinate plane, graphing points, classifying two-dimensional figures, properties of two-dimensional figures

MathCore Grade 6 (MC6) Curriculum

Ratios, unit rate, equivalent ratios, percents, solving problems involving unit rates and percents
Reinforcing fraction divisions, decimal operations
Factors, multiples, LCM, GCF
Integers - positive and negative numbers
Absolute value and ordering numbers
The coordinate plane
Numerical expressions with exponents, algebraic expressions, equivalent expressions,
Solving simple equations and inequalities, dependent and independent variables
Geometry - areas of polygons, polygons in coordinate plane, nets and surface area, volume
Statistics and probability - measures of center and variability, understand statistical questions, data plots, histograms and box plots, analyze numerical data

MathCore Grade 7 (MC7) Curriculum

Operations of (add, subtract, multiply and divide) rational numbers including terminating / recurring decimals and fractions
Solve problems involving rational numbers and integers (negative and positive numbers)
Ratios Involving Complex Fractions
Proportional Relationships - equations and problem solving
Operations of (add, subtract, multiply and divide) Integers - negative and positive numbers
Algebraic expressions and equations
Writing linear expressions, solving equations and solving inequalities
Geometry - understanding and solving problems involving angles, triangles, circles, solids (volume and surface area of prisms, pyramids, cones, cylinders and spheres)
Statistics - random samples, statistical inferences, measures of centers and variability,
Probability - understanding probability, experimental probability, probability models, probability of compound events

MathCore Grade 8 (MC8) Curriculum

Exponents & Radicals: properties of integer exponents, expressions of exponents, square roots and cube roots, rational & irrational numbers, scientific notation, operations with scientific notation

Functions: understand functions, compare functions, linear functions, analyze linear functions, graphs of functional relationships

Expressions & Equations (Linear equations): represent proportional relationships, slope-intercept equation for a line, solve linear equations with rational coefficients, solutions of linear equations, understand systems of linear equations, solving systems of equations algebraically (elimination and substitution), solve problems using systems of equations

Geometry: properties of transformations, congruence, similarity, angle relationships, angle relationships in triangles, pythagorean theorem, distance in the coordinate plane, volume of cylinders/cones/spheres, solve problems with cylinders/cones/spheres,

Statistics and Probability: scatter plots, linear models, solve problems with linear models, categorical data in frequency tables