

Math

What your child learns in math, Kindergarten through Grade 12

	NUMBERS & QUANTITIES	OPERATIONS & ALGEBRA	FRACTIONS & RATIOS	FUNCTIONS	MEASUREMENT, DATA & PROBABILITY	GEOMETRY
KINDERGARTEN	Counting to 100 ♦ Writing numbers to 20 ♦ Numbers and amounts ♦ Comparing, teen numbers	Adding and taking away ♦ Add and subtract within 10 ♦ Breaking apart numbers ♦ Making 10	—	—	Describing size and weight ♦ Comparing measures ♦ Sorting and counting	Naming shapes ♦ Flat and solid shapes ♦ Shape parts ♦ Building shapes
GRADE 1	Counting to 120 ♦ Tens and ones, teens ♦ Comparing numbers ♦ Adding within 100	Word problems to 20 ♦ Add and subtract within 20 ♦ Equal sign ♦ Missing numbers	—	—	Ordering by length ♦ Measuring length ♦ Telling time ♦ Sorting data	Shape features ♦ Combining shapes ♦ Halves and fourths
GRADE 2	Hundreds, tens, ones ♦ Skip counting ♦ Numbers to 1000 ♦ Add and subtract to 1000	Word problems to 100 ♦ Sums to 20 by heart ♦ Odd and even ♦ Arrays	—	—	Measuring length ♦ Time and money ♦ Graphs	Drawing shapes ♦ Rows and columns ♦ Halves and thirds
GRADE 3	Rounding ♦ Add and subtract within 1000 ♦ Multiplying by tens	Multiply and divide ♦ Word problems ♦ Multiplication facts ♦ Patterns	Fractions of a whole ♦ Fractions on a number line ♦ Equal fractions	—	Scaled graphs ♦ Measuring to quarter inch ♦ Elapsed time ♦ Metric volume and mass ♦ Area ♦ Perimeter	Shape families ♦ Fractions of shapes
GRADE 4	Place value, big numbers ♦ Add and subtract big numbers ♦ Multiply and divide	Factors and multiples ♦ Patterns ♦ Multistep word problems	Equivalent fractions ♦ Comparing fractions ♦ Adding fractions ♦ Multiplying fractions ♦ Fractions and decimals	—	Angles and measuring ♦ Line plots ♦ Units and area	Points, lines, angles ♦ Parallel and perpendicular ♦ Symmetry
GRADE 5	Long division ♦ Multi-digit multiplication ♦ Decimal operations ♦ Place value and decimals	Number patterns ♦ Order of operations ♦ Writing expressions	Fractions as division ♦ Multiplying fractions ♦ Dividing unit fractions ♦ Adding fractions	—	Converting units ♦ Volume ♦ Line plots	Classifying shapes ♦ Coordinate grid
GRADE 6	Dividing fractions ♦ Negatives, absolute value ♦ Coordinate plane ♦ Multi-digit operations	Exponents ♦ Writing expressions ♦ Solving equations ♦ Inequalities ♦ Variable relationships	Understanding ratios ♦ Unit rates ♦ Percents ♦ Unit conversions	—	Statistical questions ♦ Mean and median ♦ Dot plots, histograms ♦ Describing data	Area of shapes ♦ Volume of prisms ♦ Polygons on a grid ♦ Nets of 3D shapes
GRADE 7	Adding, subtracting negatives ♦ Multiplying, dividing negatives ♦ Rational number problems	Rewriting expressions ♦ Writing equations ♦ Solving equations ♦ Solving inequalities	Unit rates ♦ Proportional relationships ♦ Percent problems	—	Comparing data sets ♦ Probability basics ♦ Compound probability ♦ Sampling	Scale drawings ♦ Drawing and slicing shapes ♦ Circle area ♦ Angle facts ♦ Surface area and volume
GRADE 8	Irrational numbers	Linear equations ♦ Systems of equations ♦ Slope and graphing ♦ Exponents, roots, notation	—	What a function is ♦ Comparing functions ♦ Linear functions ♦ Graphs and relationships	Scatter plots ♦ Lines of best fit ♦ Categorical data patterns	Volume of solids ♦ Pythagorean Theorem ♦ Transformations ♦ Congruence, similarity, angles
GRADE 9	Units and accuracy ♦ Rational and irrational sums	Polynomials, expressions ♦ Writing and graphing ♦ Solving equations ♦ Quadratic equations	—	Writing functions ♦ Graphs and rate of change ♦ Function notation ♦ Linear and exponential	Comparing data sets ♦ Two-way tables ♦ Scatter plots and fitting ♦ Correlation vs causation	—
GRADE 10	—	—	—	—	—	Circles, constructions ♦ Congruence and similarity ♦ Area, volume, coordinates ♦ Trigonometry
GRADE 11	Complex numbers ♦ Rational exponents and radicals	Polynomials and factoring ♦ Rational expressions ♦ Quadratics and systems ♦ Geometric series	—	Transforming functions ♦ Inverse functions ♦ Graphing polynomials ♦ Logs and exponentials	Probability rules ♦ Two-way tables ♦ Normal distribution ♦ Surveys and inference	—
GRADE 12	Complex numbers ♦ Matrix operations ♦ Vectors	Rational expressions ♦ Binomial Theorem ♦ Matrix equations	—	Composite, inverse functions ♦ Logs and graphing ♦ Unit circle ♦ Trig models, identities	Counting and probability ♦ Random variables ♦ Expected value ♦ Decisions with probability	Conic sections ♦ Volume formulas ♦ Law of sines and cosines ♦ Triangle area formula