The US math syllabus, kindergarten to 12th grade: the checklist

What each grade teaches, the one skill that decides the next year, the test attached, and the CBSE class that covers the same work. Tick the grade your child is in and the skill that decides the year.

Kindergarten to Grade 8: taught by grade

Grade	What the year teaches	The skill that decides the next year	Test
K	counting to 100, comparing, + and - within 10, shapes	counting on from any number	none
1	+ and - within 20, place value to 120, length, time to the half hour	facts within 10 from memory	none
2	+ and - within 1,000, place value, money, time, bar graphs	regrouping understood, not only done	none
3	x and / within 100, fractions as numbers, area and perimeter	the tables to 10 x 10 by heart	first state test
4	multi-digit x, long division, equivalent fractions, angles	fractions as numbers on a line	state test
5	fractions with unlike denominators, x and / fractions, decimals, volume, coordinates	fraction arithmetic with understanding	state test
6	ratios and unit rates, dividing fractions, negatives, one-step equations, statistics	ratio reasoning	state test
7	proportional relationships, all operations with negatives, two-step equations, percent, probability	proportional reasoning	state test
8	irrationals, exponents, scientific notation, slope, linear equations, systems, functions, Pythagoras	slope, y = mx + b, solving a system	state test, or Algebra 1 EOC

Grades 9 to 12: taught by course

Standard track	Accelerated track	Course	What it covers	Test attached
9th	8th	Algebra 1	linear equations and functions, systems, exponents, polynomials, factoring, quadratics, statistics	Regents (NY), STAAR EOC (TX), FL EOC
10th	9th	Geometry	congruence and similarity, proof, right-triangle trig, circles, coordinate geometry, volume	Geometry Regents (NY); SAT
11th	10th	Algebra 2	functions, complex numbers, polynomials, rationals, radicals, exponentials and logs, sequences, trig functions, probability	Algebra II Regents (NY); the SAT
12th	11th	Pre-Calculus or AP Statistics	polynomial, rational, exponential, log and trig functions, identities, polar, vectors, limits	AP Precalculus / AP Statistics
college	12th	AP Calculus AB or BC	limits, derivatives, integrals (BC: series, parametric, polar)	AP exam in May

Integrated Math 1, 2, 3 (California and some other states) carries the same content mixed across three years. Most states require three or four math credits to graduate, nearly always including Algebra 1 and Geometry; calculus is never required for graduation.

From sciencewithshobha.com/blog/us-math-syllabus-grade-by-grade-k-to-12-what-each-grade-teaches-and-the-cbse-class-it-matches/ · 1-on-1 online maths, Grades 3 to 12, free 30-minute first class.

US grades against CBSE classes, the state tests, and your child's page

US grade	CBSE class (same age)	Usually ahead in	Usually behind in
K to 2	1 and 2	mental arithmetic, number facts	explaining a method in words; inches and feet
3 to 5	3 to 5	tables, long multiplication and division	fractions as numbers, data and graphs, multi-step word problems
6	6	integers, basic algebra	statistics, unit rates, explaining reasoning
7	7	equations, percent arithmetic	probability, scale drawings, two-step inequalities
8	8	algebraic manipulation, exponents	functions, scatter plots, transformations
9 (Algebra 1)	9	factorising, solving equations	exponential functions, two-variable statistics, word problems
10 (Geometry)	10	theorems, trig ratios	two-column proof, transformations, coordinate proof
11 (Algebra 2)	11	trig identities, sequences	logarithm applications, the normal distribution, modelling
12 (Pre-Calc / Calculus)	12	differentiation and integration techniques	applied and modelling questions, the AP free-response style

Grade	What is tested	Examples
3 to 8	the grade's standards, every spring	STAAR (TX), MCAS (MA), NY State tests, SBAC (CA, WA), FAST (FL), PSSA (PA)
8 or 9	Algebra 1 end-of-course, where the state has one	Regents Algebra I (NY), STAAR Algebra I (TX), Algebra 1 EOC (FL), Georgia Milestones
10	Geometry, in some states	Regents Geometry (NY); FL EOCs
11	Algebra 2 (NY); the SAT or ACT as the state test in about half the states	Regents Algebra II; SAT in CT, MI, IL and others
11 or 12	AP exams in May	AP Precalculus, AP Calculus AB and BC, AP Statistics

Your child's page

Grade and course this year: _____

Track (standard / accelerated / integrated): _____

The skill that decides next year: _____

The test attached, and its month: _____

Arrived from CBSE class (if so): _____

First three topics to work on: _____

[ ] Course name and track confirmed with the counsellor or course catalog
[ ] The deciding skill checked at home (fractions by Grade 5; proportion by Grade 7; factoring and slope by the end of Algebra 1)
[ ] One timed sitting of the state's released test each spring, from Grade 3
[ ] If from India: the American course taught to a high standard first, then Kangaroo and AMC 8 once school work is secure