

Curriculum change for Maths

An overview of what's moved where

Current A Level



GCSE (9-1) Higher tier

- Expand the products of more than two binomials
- Interpret the reverse process as the 'inverse function'; interpret the succession of two functions as a 'composite function' (using formal function notation)
- Deduce turning points by completing the square
- Calculate or estimate gradients of graphs and areas under graphs, and interpret results in real-life cases (not including calculus)
- Simple geometric progressions including surds, and other sequences
- Deduce expressions to calculate the n th term of quadratic sequences
- Quadratic inequalities
- Calculate and interpret conditional probabilities through representation using expected frequencies with Venn diagrams

Current GCSE Higher



GCSE (9-1) Foundation tier

(previously Higher tier only in 2010)

- Index laws: zero and negative powers (numeric and algebraic)
- Standard form
- Compound interest and reverse percentages
- Direct and indirect proportion (numeric and algebraic)
- Expand the product of two linear expressions
- Factorise quadratic expressions in the form x^2
- Solve linear/linear simultaneous equations
- Solve quadratic equations by factorisation
- Plot cubic and reciprocal graphs, recognise quadratic and cubic graphs
- Trigonometric ratios in 2D right-angled triangles
- Fractional scale enlargements in transformations
- Lengths of arcs and areas of sectors of circles
- Mensuration problems
- Vectors (except geometric problems/proofs)
- Density
- Tree diagrams
- Congruence and similarity

Current GCSE



New KS3

- Distinguish between exact representations of roots and their decimal approximations
- Interpret and compare numbers in standard form $A \times 10^n$, $1 \leq A < 10$, where n is a positive or negative integer or zero
- Calculate possible rounding/estimating errors expressed using inequality notation $a < x \leq b$
- Appreciate the infinite nature of the set of integers, real and rational numbers
- Find approximate solutions to problems from a variety of functions including piecewise linear, exponential and reciprocal graphs
- Recognise geometric sequences
- Direct and indirect proportion including graphical and algebraic representations
- Use trig ratios in similar triangles to solve problems involving right-angled triangles
- Interpret mathematical relationships both algebraically and geometrically
- Venn diagrams in probability

Old KS3



New KS2

- Comparing and ordering fractions greater than 1
- Long division
- 4 operations with fractions
- Calculate decimal equivalent of fractions
- Understand and use order of operations
- Plot points in all 4 quadrants
- Convert between miles and kilometres
- Name radius/diameter and know relationship
- Use formulae for area/volume of shapes
- Calculate area of triangles & parallelograms
- Calculate volume of 3-d shapes
- Use letters to represent unknowns (algebra)
- Generate and describe linear sequences
- Find solutions to unknowns in problems

