blutick.
maths with confidence

Curriculum Mapping Guide

Cambridge International

Cambridge Assessment International Education

IGCSE Mathematics Curriculum (0607)

Why Blutick?

Made by teachers and powered by AI, Blutick puts students back in control of their learning.

It teaches and guides them through mathematical concepts with a unique combination of pedagogy, including intelligent line-by-line feedback for students that helps them identify and learn from mistakes, and expert teacher videos from the mathematics team at The Perse School in Cambridge, UK.

Blutick content is organised into four mathematical areas and each area is then divided into sub-sections:

- Number (11 sections)
- Algebra (7 sections)
- Geometry (13 sections)
- Statistics and Probability (6 sections)

Each sub-section is also broken down into smaller steps, and each step comes with questions (to three levels), videos, worked examples, questions to complete and a quiz.

How to use this curriculum mapping guide

We have mapped the Cambridge Assessment International Education IGCSE Mathematics Curriculum (0607) to the Blutick curriculum. The Cambridge International Curriculum is for examination in June and November 2020, 2021 and 2022 (also available for examination in March 2021 and 2022 for India only).

Candidates may follow either the Core Curriculum or the Extended Curriculum. Candidates aiming for grades A* to E should follow the Extended Curriculum. This curriculum mapping guide maps against the Extended Curriculum only.

The Cambridge International IGSCE Curriculum is organised into 10 topics:

The following pages show the breakdown of content mapped to the Blutick content.

Summary

70% of the Cambridge International IGCSE Mathematics Curriculum can be mapped against the Blutick curriculum, either directly or through subject specific links, with a further 10% of components in current development. There is 6% within the Cambridge International curriculum that have no links in Blutick due to software limitations and 14% where no content is currently available.

In summary, Blutick offers **80% coverage** (current and planned developments within 6 months) of the Cambridge International IGCSE Mathematics Curriculum (0607).

Key

Components that have direct links with Blutick content	bright green
Components that are not yet available but are in development	dark green
Components that do not directly link with Blutick curriculum, but have subject specific links	yellow
Components that have no links, due to software limitations (e.g. gathering of data)	blue
Components that have no current content available	purple

Cambridge International IGCSE Mathematics (0607)

Number

Curriculum Statement	Blutick	Blutick link
Vocabulary and notation for different sets of numbers: natural numbers, primes, squares, cubes, integers, rational numbers, irrational numbers, real numbers, triangle numbers	Direct link	Number: Properties of Integers Number: Surds (Excluding triangle numbers)
Use of the four operations and brackets	Direct link	Number: Arithmetic Operations
Highest common factor, lowest common multiple	Direct link	Number: Properties of Integers
Calculation of powers and roots	Direct link	Number: Powers and Roots
Ratio and proportion	Direct link	Number: Ratio and Proportion
Absolute value | x |	No content currently available	
Equivalences between decimals, fractions and percentages	Direct link	Number: Percentages Number: Decimals
Percentages including applications such as interest and profit	Direct link	Number: Percentages
Meaning of exponents in standard form	Blutick does not have a specific question to match this statement, however, links to this mathematical area can be found in our section on Powers and Roots	Number: Powers and Roots
Rules for exponents	Direct link	Number: Powers and Roots
Surds (radicals), simplification of square root expressions	Direct link	Number: Surds
Rationalisation of the denominator	Direct link	Number: Surds
Estimating, rounding, decimal places and significant figures	Direct link	Number: Rounding and Estimation
Calculations involving time: seconds (s), minutes (min), hours (h), days, months, years including the relation between consecutive units	Direct link	Geometry: Units & Measurement
Problems involving speed, distance and time	Direct link	Geometry: Units & Measurement

Cambridge International IGCSE Mathematics (0607)

Algebra

Curriculum Statement	Blutick	Blutick link
Writing, showing and interpretation of inequalities, including those on the real number line	Direct link	Algebra: Equations and Inequalities
Solution of linear and quadratic inequalities Solution of inequalities using a graphic display calculator	Direct link	Algebra: Equations and Inequalities
Solution of linear equations including those with fractional expressions	Direct link	Algebra: Equations and Inequalities
Indices	Direct link	Algebra: Simplifying Expressions
Derivation, rearrangement and evaluation of formulae	Direct link	Algebra: Evaluating Expressions Algebra: Formulae (Excluding derivation of formulae)
Solution of simultaneous linear equations in two variables	Direct link	Algebra: Equations and Inequalities
Expansion of brackets, including the square of a binomial	Direct link	Algebra: Expanding Brackets
Factorisation: common factor, difference of squares, trinomial, four term	Direct link	Algebra: Factorising (Excluding trinomial and four term)
Algebraic fractions: simplification, including use of factorisation, addition or subtraction of fractions with linear denominators or single term, multiplication or division and simplification of two fractions	Direct link	Algebra: Algebraic Fractions
Solution of quadratic equations: by factorisation, using a graphic display calculator, using the quadratic formula	Direct link	Algebra: Equations and Inequalities (Excluding using a graphic display calculator due to current software limitations)
Use of a graphic display calculator to solve equations, including those which may be unfamiliar	No because of current software limitations, however a great one for teachers to follow up	
Continuation of a sequence of numbers or patterns	Direct link	Number: Functions and Sequences
Determination of the nth term	Direct link	Number: Functions and Sequences
Use of a difference method to find the formula for a linear sequence, a quadratic sequence or a cubic sequence	Direct link	Number: Functions and Sequences

Identification of a simple geometric sequence and determination of its formula	Direct link	Number: Functions and Sequences
Direct variation (proportion)	Direct link	Number: Ratio and Proportion
Inverse variation	Direct link	Number: Ratio and Proportion
Best variation model for given data	No because of current software limitations, however a great one for teachers to follow up	

Cambridge International IGCSE Mathematics (0607)

Functions

Curriculum Statement	Blutick	Blutick link
Notation	Direct link	Number: Functions and Sequences
Domain and range	No content currently available	
Mapping diagrams	No content currently available	
Recognition of the following function types from the shape of their graphs: linear, quadratic, cubic, reciprocal, exponential, absolute value, trigonometric	Coming soon, currently in development	
Determination of at most two of a, b, c or d in simple cases of 3.2	No content currently available	
Finding the quadratic function given vertex and another point, x-intercepts and a point, vertex or x-intercepts with a = 1	Blutick does not have a specific question to match this statement, however, links to this mathematical area can be found in our section on Using Graphs	Algebra: Using Graphs
Understanding of the concept of asymptotes and graphical identification of simple examples parallel to the axes	No content currently available	
Use of a graphic display calculator to: sketch the graph of a function, produce a table of values, find zeros, local maxima or minima, find the intersection of the graphs of functions	No because of current software limitations, however a great one for teachers to follow up	
Simplify expressions such as f(g(x)) where g(x) is a linear expression	Direct Link	Number: Functions and Sequences
Description and identification, using the language of transformations, of the changes to the graph of y = f(x) when y = f(x) + k, y = k f(x), y = f(x + k)	Coming soon, currently in development	
Inverse function f –1	Direct Link	Number: Functions and Sequences
Logarithmic function as the inverse of the exponential function	No content currently available	
Rules for logarithms corresponding to rules for exponents	No content currently available	

Cambridge International IGCSE Mathematics (0607)

Coordinate Geometry

Curriculum Statement	Blutick	Blutick link
Plotting of points and reading from a graph in the Cartesian plane	Coming soon, currently in development	
Distance between two points	No content currently available	
Mid-point of a line segment	No content currently available	
Gradient of a line segment	Direct link	Algebra: Using Graphs
Gradient of parallel and perpendicular lines	Direct link	Algebra: Using Graphs
Equation of a straight line as y = mx + c and ax + by = d (a, b and d integer)	Direct link	Algebra: Using Graphs
Linear inequalities in the Cartesian plane	Coming soon, currently in development	
Symmetry of diagrams or graphs in the Cartesian plane	No content currently available	
Use and interpret the geometrical terms: acute, obtuse, right angle, reflex, parallel, perpendicular, congruent, similar Use and interpret vocabulary of triangles, quadrilaterals, polygons and simple solid figures	Blutick does not have a specific question to match this statement, however, links to this mathematical area can be found in our Geometry section	Geometry: Basic Angle Facts Geometry: Angles in Polygons Geometry: Congruent and Similar Triangles
Line and rotational symmetry	Direct link	Geometry: Transformations
Angle measurement in degrees	Direct link	Geometry: Geometrical Constructions
Angles round a point	Coming soon, currently in development	
Angles on a straight line and intersecting straight lines	Direct link	Geometry: Basic Angle Facts
Vertically opposite angles	Coming soon, currently in development	
Alternate and corresponding angles on parallel lines	Direct link	Geometry: Basic Angle Facts
Angle sum of a triangle, quadrilateral and polygons Interior and exterior angles of a polygon	Direct link	Geometry: Angles in Polygons
Angles of regular polygons	Direct link	Geometry: Angles in Polygons
Similarity Calculation of lengths of similar figures Use of area and volume scale factors	Direct link	Geometry: Congruent & Similar Triangles

Pythagoras' Theorem and its converse in two and three dimensions Including: chord length distance of a chord from the centre of a circle distances on a grid	Direct link	Geometry: Pythagoras & Trigonometry
Use and interpret vocabulary of circles	Direct link	Geometry: Perimeter and Area Geometry: Circle Theorems
Properties of circles: tangent perpendicular to radius at the point of contact; tangents from a point; angle in a semicircle; angles at the centre and at the circumference on the same arc; cyclic quadrilateral; alternate segment	Direct link	Geometry: Circle Theorems

Cambridge International IGCSE Mathematics (0607)

Vectors and Transformations

Curriculum Statement	Blutick	Blutick link
Notation: component form	Blutick does not have a specific question to match this statement, however, links to this mathematical area can be found in our section on Vectors	Geometry: Vectors
Addition and subtraction of vectors Negative of a vector Multiplication of a vector by a scalar	Direct link	Geometry: Vectors
Find the magnitude of (x/y)	No content currently available	
Transformations on the Cartesian plane: translation; reflection; rotation; enlargement (reduction); stretch	Direct link	Geometry: Transformations
Description of a transformation	Blutick does not have a specific question to match this statement, however, links to this mathematical area can be found in our section on Transformations	Geometry: Transformations
Inverse of a transformation	Blutick does not have a specific question to match this statement, however, links to this mathematical area can be found in our section on Transformations	Geometry: Transformations
Combined transformations	Direct link	Geometry: Transformations

Cambridge International IGCSE Mathematics (0607)

Mensuration

Curriculum Statement	Blutick	Blutick link
Units: mm, cm, m, km, mm2, cm2, m2, ha, km2, mm3, cm3, m3 ml, cl, l, g, kg, t	Blutick does not have a specific question to match this statement, however, links to this mathematical area can be found in our Geometry section	Geometry: Units & Measurement Geometry: Perimeter and Area Geometry: Volume & Surface Area
Perimeter and area of rectangle, triangle and compound shapes derived from these	Direct link	Geometry: Perimeter & Area
Circumference and area of a circle	Direct link	Geometry: Perimeter & Area
Arc length and area of sector	Direct link	Geometry: Perimeter & Area
Surface area and volume of prism and pyramid (in particular, cuboid, cylinder and cone) Surface area and volume of sphere and hemisphere	Direct link	Geometry: Perimeter & Area
Areas and volumes of compound shapes	Direct link	Geometry: Perimeter & Area

Cambridge International IGCSE Mathematics (0607)

Trigonometry

Curriculum Statement	Blutick	Blutick link
Right-angled triangle trigonometry	Direct link	Geometry: Pythagoras & Trigonometry
Exact values for the trigonometric ratios of 0°, 30°, 45°, 60°, 90°	Direct link	Geometry: Pythagoras & Trigonometry
Extension to the four quadrants, i.e. 0°–360°	No content currently available	
Sine rule	Direct link	Geometry: Further Trigonometry
Cosine rule	Direct link	Geometry: Further Trigonometry
Area of triangle	Direct link	Geometry: Further Trigonometry
Applications: three-figure bearings and North, East, South, West, problems in two and three dimensions	Coming soon, currently in development	
Properties of the graphs of y = sin x, y = cos x, y= tan x	Coming soon, currently in development	

Sets

Curriculum Statement	Blutick	Blutick link
Notation and meaning for: number of elements in A, (n(A)); is an element of (∈); is not an element of (∉); complement of A, (A′); empty set (∅ or { }); universal set (∪); is a subset of (⊆); is a proper subset of (⊂)	No content currently available	
Sets in descriptive form { x | } or as a list	No content currently available	
Venn diagrams with at most three sets	Direct link	Probability & Stats: Probability Methods
Intersection and union of sets	No content currently available	

Probability

Curriculum Statement	Blutick	Blutick link
Probability P(A) as a fraction, decimal or percentage Significance of its value	Direct link	Probability & Stats: Introduction to Probability
Relative frequency as an estimate of probability	Direct link	Probability & Stats: Introduction to Probability
Expected frequency of occurrences	Direct link	Probability & Stats: Introduction to Probability
Combining events: the addition rule P(A or B) = P(A) + P(B) the multiplication rule P(A and B) = P(A) × P(B)	Direct link	Probability & Stats: Rules of Probability
Tree diagrams including successive selection with or without replacement	Direct link	Probability & Stats: Probability Methods
Probabilities from Venn diagrams and tables	Direct link	Probability & Stats: Probability Methods Probability & Stats: Sample Spaces

Cambridge International IGCSE Mathematics (0607)

Statistics

Curriculum Statement	Blutick	Blutick link
Reading and interpretation of graphs or tables of data	No because of current software limitations, however a great one for teachers to follow up	
Discrete and continuous data	Direct link	Probability & Stats: Statistical Calculations Probability & Stats: Statistical Charts
(Compound) bar chart, line graph, pie chart, pictograms, stem-and-leaf diagram, scatter diagram	Direct link	Probability & Stats: Statistical Charts
Mean, mode, median, quartiles and range from lists of discrete data	Direct link	Probability & Stats: Statistical Calculations
Mean, mode, median and range from grouped discrete data	Direct link	Probability & Stats: Statistical Calculations
Mean from continuous data	Direct link	Probability & Stats: Statistical Calculations
Cumulative frequency table and curve Median, quartiles, percentiles and interquartile range	Coming soon, currently in development	
Use of a graphic display calculator to calculate mean, median, and quartiles for discrete data and mean for grouped data	No because of current software limitations, however a great one for teachers to follow up	
Understanding and description of correlation (positive, negative or zero) with reference to a scatter diagram	Coming soon, currently in development	
Straight line of best fit (by eye) through the mean on a scatter diagram	Coming soon, currently in development	
Use a graphic display calculator to find equation of linear regression	No because of current software limitations, however a great one for teachers to follow up	

blutick.
maths with confidence

Try Blutick today

blutick.com

Contact us

info@blutick.com

+44 330 043 1213