CELT Maths Curriculum 2026 – 2027 | Year 10 Higher Autumn Term

Module	What will learners learn?	How does this build a strong foundation?	Links to other subjects
Pythagoras and Right-Angled Trigonometry	Learners apply Pythagoras and sine, cosine and tangent ratios to find missing lengths and angles. Strong also uses exact trigonometric values and solves problems in three dimensions.	Builds on squares, roots and right-angled triangles. Connects calculation with geometric reasoning and supports later work with similar shapes and solid geometry.	• Design and Technology: diagonal lengths. • Geography: gradients and distances.
Linear and Quadratic Equations	Learners form and solve linear and quadratic equations using factorisation and the quadratic formula, linking solutions to graph roots. Strong also solves by completing the square.	Connects Year 9 factorisation with graphical representations. Selecting suitable methods supports equations arising from geometry and later algebraic problem solving.	• Science: unknowns in formulae. • Design and Technology: area and dimensions.
Circles 2	Learners calculate sector areas, arc lengths and perimeters, then apply circle theorems, including tangent relationships. Strong also finds missing measurements from given arc lengths or sector areas.	Builds on circle vocabulary, fractions and angle facts. Combining theorems with algebra develops reasoning and prepares learners for more complex geometric problems.	• Design and Technology: circular components. • Art: geometric designs.
Representing Data 3	Learners consolidate grouped-data representations and estimates of the mean. They draw and interpret histograms using frequency density, and connect histograms with grouped frequency tables.	Extends Year 9 grouped data and cumulative frequency. Distinguishing frequency from frequency density supports accurate interpretation of continuous data.	• Geography: fieldwork distributions. • Science: grouped measurements.

CELT Maths Curriculum 2026 – 2027 | Year 10 Higher Spring Term

Module	What will learners learn?	How does this build a strong foundation?	Links to other subjects
Inequalities and Rounding (to Spring)	Learners represent and solve linear inequalities, round and truncate values, and describe error intervals. Strong also solves inequalities with negative coefficients and calculates with upper and lower bounds.	Extends equation solving and place value. Describing permitted values and measurement precision supports practical constraints and judging the accuracy of calculations.	• Science: measurement uncertainty. • Design and Technology: tolerances.
Area and Volume 2	Learners calculate volume and surface area for prisms, cylinders, spheres, cones and pyramids. They solve problems with composite solids and work backwards to find missing dimensions.	Connects earlier area and volume with circle formulae and rearranging. Identifying the relevant surfaces and cross-sections supports increasingly complex geometric problems.	• Design and Technology: material quantities. • Food Technology: container capacity. • Science: volume measurements.
Proportion, Compound Measures and Graphs	Learners solve ratio and algebraic proportion problems, convert units and calculate speed and density. They interpret motion graphs and acceleration from gradients. Strong also interprets areas under velocity–time graphs.	Connects proportional reasoning with algebra and graphs. Modelling relationships and interpreting quantities per unit supports scientific calculations and practical problem solving.	• Science: density, speed and acceleration. • Geography: unit conversions and journeys.

CELT Maths Curriculum 2026 – 2027 | Year 10 Higher Summer Term

Module	What will learners learn?	How does this build a strong foundation?	Links to other subjects
Sequences 2	Learners recognise special sequences, find arithmetic nth-term rules and derive quadratic sequence rules using second differences. Strong also explores simple geometric sequences.	Connects number patterns with Year 9 quadratic algebra. General rules support predicting terms and describing patterns mathematically.	• Computing: generate sequences from rules. • Art: patterns based on number sequences.
Congruency and Similarity	Learners apply triangle congruence criteria and use scale factors in similar shapes. Strong also connects length, area and volume scale factors.	Builds on transformations and proportion. Comparing corresponding sides and angles supports geometric reasoning and scaling problems.	• Design and Technology: scale models. • Geography: map scales.
Probability 3: Sets and Trees	Learners organise outcomes using sample spaces, the product rule and set notation. They use tree diagrams to calculate probabilities for independent and dependent events.	Extends earlier probability and proportional reasoning. Representing combined events supports systematic counting and calculations when probabilities change.	• Science: outcomes of repeated trials. • Computing: random simulations.
Simultaneous Equations	Learners solve pairs of simultaneous linear equations by elimination, multiplying one or both equations when needed. They select methods and check that solutions satisfy both equations.	Builds on linear equations and equivalent expressions. Finding values satisfying two conditions supports graphical solutions and contextual problems.	• Science: related equations. • PSHE: compare costs under two conditions.
Algebraic Graphs 3	Learners revisit linear and quadratic graphs, find equations of parallel and perpendicular lines, and solve simultaneous equations graphically. They interpret graphs in problems.	Connects equations with gradients and intersections. Graphical representations support checking algebraic solutions and modelling relationships.	• Science: gradients and relationships. • Geography: graphical comparisons.
Scale and Construction	Learners interpret plans and elevations, use scale diagrams and bearings, and make ruler and compass constructions. They find regions satisfying combinations of loci.	Builds on scale, shape properties and accurate measurement. Connects two-dimensional representations with three-dimensional shapes and geometric constraints.	• Design and Technology: plans and constructions. • Geography: maps and navigation.