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IGCSE Mathematics Long Term Curriculum Plan

Subject – IGCSE Mathematics

Year Group	Term 1 (Aug – Oct)	Term 2 (Oct – Dec)	Term 3 (Jan – Mar)	Term 4 Mar – Jun)
Year 10	**Unit 1** 1 – Reviewing number concepts 1.1 Different types of numbers 1.2 Multiples and factors 1.3 Prime numbers 1.4 Powers and roots 1.5 Working with directed numbers 1.6 Order of operations 1.7 Rounding numbers 2 – Making sense of algebra 2.1 using letters to represent unknown values 2.2 Substitution 2.3 Simplifying expressions 2.4 Working with brackets 2.5 Indices 3 – Lines, angles and shapes 3.1 Lines and angles 3.2 Triangles 3.3 Quadrilaterals	**Unit 2** 5 – Fractions 5.1 Equivalent fractions 5.2 Operations on fractions 5.3 Percentages 5.4 Standard form 5.5 Your calculator and standard form 5.6 Estimation 6 – Equations and transforming formulae 6.1 further expansions of brackets 6.2 Solving linear equations 6.3 Factorising algebraic expressions 6.4 Transformation of a formula 7 – Perimeter, area and volume 7.1 Perimeter and area in two dimensions	**Unit 3** 9 – Sequences and sets 9.1 Sequences 9.2 Rational and irrational numbers 9.3 Sets 10 - Straight lines and quadratic equations 10.1 Straight lines 10.2 Quadratic expressions 11 - Pythagoras' theorem and similar shapes 10.2 Pythagoras' theorem 11.2 Understanding similar triangles 11.3 Understanding similar shapes 11.4 Understanding congruence 12 – Averages and measures of spread	**Unit 4** 13 – Understanding measures 13.1 Understanding units 13.2 Time 13.3 Upper and lower bounds 13.4 Conversion graphs 13.5 More money 14 – Further solving of equations and inequalities 14.1 Simultaneous linear equations 14.2 linear inequalities 14.3 Regions in a plane 14.4 Linear programming 14.5 Completing the square 14.6 Quadratic formula 14.7 Factorising quadratics were the coefficient fo x^2 is not 1 14.8 Algebraic fractions

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	3.4 Polygons 3.5 Circles 3.6 Construction 4 – Collecting, organising and displaying data 4.1 Collecting and classifying data 4.2 Organising data 4.3 Using charts to display data	7.2 Three-dimensional objects 7.3 Surface areas and volumes of solids 8 – Introduction to probability 8.1 Basic probability 8.2 Theoretical probability 8.3 The probability that and event does not happen 8.4 Possibility diagrams 8.5 Combining independent and mutually exclusive events	12.1 Different types of average 12.2 making comparisons using averages and ranges 12.3 Calculating averages and ranges for frequency data 12.4 Calculating averages and ranges for grouped continuous data 12.5 percentiles and quartiles	15 Scale drawing, bearings and trigonometry 15.1 Scale drawing 15.2 Bearings 15.3 Understanding the tangent, cosine and sine ratios 15.4 Solving problems using trigonometry 15.6 The sine and cosine rules 15.7 Area of a triangle 15.8 Trigonometry in three dimensions 16 – Scater diagrams and correlation 16.1 Introduction to bivariate data
Year 11	**<u>Unit 5</u>** 17 – Managing money 17.1 Earning money 17.2 Borrowing and investing money 17.3 Buying and selling 18 – Curved graphs	**<u>Unit 6</u>** 21 – Ratio, rate and proportion 21.1 Working with ratio 21.2 Ratio and scale 21.3 Rates 21.4 Kinematic graphs 21.5 Proportion	**<u>Exam practice</u>** 1 Structured questions for units 4 to 6. 2 Past papers 3 Mock exam 4 Test corrections 5 More revision in preparation for exams.	**Study leave and IGCSE exam**

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	18.1 Plotting quadratic graphs (the parabola) 18.2 Plotting reciprocal graphs (the hyperbola) 18.3 Using graphs to solve quadratic equations 18.4 using graphs to solve simultaneous linear and non-linear equations 18.5 other non-linear graphs 18.6 Finding the gradient of a curve 19 – Symmetry and loci 19.1 Symmetry in two dimensions 19.2 Symmetry in three dimensions 19.3 Symmetry properties of circles 19.4 Angle relationships in circles 19.5 Locus 20 – Histograms and frequency distribution diagrams 20.1 Histograms	21.6 Direct and inverse proportion in algebraic terms 21.7 Increasing and decreasing amounts by a given ratio 22 – More equations, formulae and functions 22.1 Setting up equations to solve problems 22.2 Using and transforming formulae 22.3 Functions and function notation 23 – Transformations and matrices 23.1 Simple plane transformations 23.2 Vectors 23.3 Further transformations 23.4 Matrices and matrix transformation 23.5 matrices and transformations 24 – Probability using tree diagram		

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	20.2 Cumulative frequency	24.1 Using tree diagram to show outcomes 24.2 Calculating probability from tree diagrams		