

Scope and Sequence Document for: IGCSE Mathematics

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Tutor qualifications:	B.Sc. (Hons) Durham PGCE, East Anglia	IGCSE/A level Exam board & Specification: No:	Mathematics A Extended tier CAIE 0580
Resources required:	Cambridge IGCSE Mathematics Core and Extended 4th Edition, (2018), Ric Pimentel and Terry Wall, ISBN: 9781510421684, Hodder		

Module No.	NSW week No.	Week beginning Monday the:	Contents of study
1	1	02/09/19	Types of number, roots, factors & multiples and directed number (chapter 1)
	2	09/09/19	Expanding brackets, factorising, substitution, rearranging formulae, positive and negative indices (chapters 11.1 – 11.6 and 12.1 – 12.2)
	3	16/09/19	Approximation, rounding, estimating and bounds (chapter 2.1 – 2.5)
	4	23/09/19	Coordinates, gradient of a straight line, equation of a straight line and parallel lines (chapter 21.1 – 21.11)
	5	30/09/19	Sets and Venn diagrams (chapter 10) Practice test 1
2	6	07/10/19	Names and properties of polygons, constructions and similar shapes (chapters 22 and 23.1)
	7	14/10/19	Ordering numbers, order of operations, fractions and decimals (chapters 3 and 4.1 – 4.10)
	8	21/10/19	Half Term
2	9	28/10/19	Calculating percentages, percentage increase and decrease, currency conversions, earnings and profit and loss (chapters 5 and 8)
	10	04/11/19	Constructing equations, solving linear equations and solving simultaneous equations algebraically and graphically (chapters 13.1 – 13.6 and 21.12)
	11	11/11/19	Angles at a point, on a line, in a triangle, in polygons and in a circle (chapter 25.1 – 25.6)
3	12	18/11/19	Arithmetic sequences and quadratic sequences, conversion graphs, distance graphs and travel graphs (chapters 15.1 – 15.3 and 17.1 – 17.4)
	13	25/11/19	Averages and range of data, charts, surveys, scatter diagrams and histograms (chapters 35.1 – 35.2 and 36.1 – 36.4)
	14	02/12/19	Quadratic graphs and using graphs to solve equations and reciprocal graphs (chapters 18.1 – 18.3 and 18.5) Practice test 2
	15	09/12/19	Proportion, ratio, compound measures and time (chapters 6.1 – 6.4, 6.7 and 9)
	16	16/12/19	Christmas Holiday
	17	23/12/19	Christmas Holiday
	18	30/12/19	Christmas Holiday

3	19	06/01/20	Positive and negative indices, zero index, exponential equations, standard form (chapters 7.1 – 7.6)
4	20	13/01/20	Metric units and area and volume conversions (chapter 26)
	21	20/01/20	Probability, Venn diagrams and relative frequency (chapter 33)
	22	27/01/20	Perimeter, area, volume and surface area (chapter 27) Practice test 3
	23	03/02/20	Second week for above topics
	24	10/02/20	Half Term
4	25	17/02/20	Combined events, tree diagrams and conditional probability (chapter 34)
5	26	24/02/20	Vectors, translations, addition and subtraction of vectors and multiplying a vector by a scalar (chapter 31.1 – 31.3)
	27	02/03/20	Bearings, trigonometry and Pythagoras' theorem (chapters 28 and 29.1 – 29.5)
	28	09/03/20	Reflections, rotations, translations and enlargement (chapter 32.1 – 32.8)
	29	16/03/20	Revision Practice test 4
	30	23/03/20	Revision
	31	30/03/20	Revision Practice test 5
	32	06/04/20	Easter Holiday
	33	13/04/20	Easter Holiday
	34	20/04/20	Easter Holiday
	35	27/04/20	Final revision week for Year 10 exam
	36	04/05/20	Year 10 exam paper 1
	37	11/05/20	Year 10 exam paper 2
6	38	18/05/20	Calculating with upper and lower bounds and recurring decimals (chapters 2.6 – 2.7 and 4.11)
	39	25/05/20	Half Term
6	40	01/06/20	Expanding double brackets, harder factorising, difference of two squares, factorising quadratic expressions, rearranging more complex formulae and algebraic fractions (chapter 11.7 – 11.18)
	41	08/06/20	Increase and decrease by a given ratio and fractional indices (chapter 6.5 – 6.6 and 7.7 – 7.8)
	42	15/06/20	Magnitude of a vector, position vectors, vector geometry, negative enlargement and combinations of transformations (chapter 31.4 – 31.7 and 32.9 – 32.10)
	43	22/06/20	Mean of grouped data, further histograms, cumulative frequency, quartiles, interquartile range and box-and-whisker plots (chapters 35.3, 36.5 and 37)
NSW Summer holiday period – 1 July – 31 August 2020			
7	1	07/09/20	Angles of elevation and depression, trigonometric curves and solving trigonometric equations (chapter 29.6 – 29.9)
	2	14/09/20	Sine rule, cosine rule, area of a triangle, trigonometry in 3-D and the angle between a line and a plane (chapter 30)
	3	21/09/20	Fractional indices, solving quadratic equations by factorising, the quadratic formula, simultaneous equations with one linear and

			one quadratic equation and solving linear inequalities (chapters 12.3 and 13.7 – 13.13)
	4	28/09/20	Graphing inequalities and linear programming (chapter 14)
7	5	05/10/20	Exponential sequences, combinations of sequences, calculating the length of a line segment, the midpoint of a line segment, the equation of a line through two points and perpendicular lines (chapters 15.3 – 15.5 and 21.13 - 21.15)
	6	12/10/20	Similar shapes, area and volume of similar shapes, congruent shapes and congruent triangles (chapter 23.2 – 23.6)
	7	19/10/20	Revision – exam practice papers
	8	26/10/20	Half Term
8	9	02/11/20	Direct proportion and inverse proportion (chapter 16)
	10	09/11/20	Symmetry and circle properties (chapter 24)
	11	16/11/20	Angle properties of circles (chapter 25.7 – 25.10)
	12	23/11/20	Speed-time graphs, area under a speed-time graph and non-linear travel graphs (chapter 17.5 – 17.8)
	13	30/11/20	Quadratic graphs, types of graphs, exponential functions, gradients of curves, solving equations graphically and sketching functions (chapter 18.4, 18.6 – 18.11)
9	14	07/12/20	Functions, inverse functions and composite functions (chapter 20)
	15	14/12/20	Revision – exam practice papers
	16	21/12/20	Christmas Holiday
	17	28/12/20	Christmas Holiday
	18	04/01/21	Christmas Holiday
9	19	11/01/21	The gradient function, differentiation, gradient of a curve at a point and equation of a curve at a point (chapter 19)
	20	18/01/21	Catch-up and Personal Revision
	21	25/01/21	Catch-up and Personal Revision
	22	01/02/21	Year 11 Internal Exam Paper 1
	23	08/02/21	Year 11 Internal Exam Paper 2
	24	15/02/21	Half Term
10	25	22/02/21	Revision of number topics (chapters 1 – 10)
	26	01/03/21	Revision of algebra and graph topics (chapters 11 – 21)
	27	08/03/21	Revision of geometry and mensuration topics (chapters 22 – 27)
	28	15/03/21	Revision of trigonometry, vectors and transformations topics (chapters 28 – 32)
	29	22/03/21	Revision of probability and statistics topics (chapters 33 – 37)
		29/03/21	Easter Holiday
		05/04/21	Easter Holiday
		12/04/21	Easter Holiday
		19/04/21	

		26/04/21	
		03/05/21	
		10/05/21	
		17/05/21	
		24/05/21	
		31/05/21	Half Term
		07/06/21	
		14/06/21	
		21/06/21	
		28/06/21	