

Scope and Sequence Document for: IGCSE Mathematics

Tutor	Emma Campbell		
Tutor qualifications:	B.Sc. (hons) (Oxford), PGCE (Queens, Belfast)	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	06/09/21	Types of number, roots, factors & multiples and directed number (chapter 1)
	2	13/09/21	Expanding brackets, factorising, substitution, rearranging formula, positive and negative indices (chapters 11.1 – 11.6)
	3	20/09/21	Approximation, rounding, estimating and bounds (chapter 2.1 – 2.5)
	4	27/09/21	Coordinates, gradient of a straight line, equation of a straight line and parallel lines (chapter 21.1 – 21.11)
	5	04/10/21	Sets and Venn diagrams (chapter 10) Practice test 1
2	6	11/10/21	Names and properties of polygons, constructions and similar shapes (chapters 22 and 23.1)
	7	18/10/21	Ordering numbers, order of operations, fractions and decimals (chapters 3 and 4.1 – 4.10)
	8	25/10/21	Half Term
2	9	01/11/21	Calculating percentages, percentage increase and decrease, currency conversions, earnings and profit and loss (chapters 5 and 8)
	10	08/11/21	Constructing equations, solving linear equations and solving simultaneous equations algebraically and graphically (chapters 13.1 – 13.6 and 21.12)
	11	15/11/21	Angles at a point, on a line, in a triangle, in polygons and in a circle (chapter 25.1 – 25.6)
	12	22/11/21	Arithmetic sequences and quadratic sequences, conversion graphs, distance graphs and travel graphs (chapters 15.1 – 15.3 and 17.1 – 17.4)
	13	29/11/21	Averages and range of data, charts, surveys, scatter diagrams and histograms (chapters 35.1 – 35.2 and 36.1 – 36.4)
	14	06/12/21	Quadratic graphs and using graphs to solve equations and reciprocal graphs (chapters 18.1 – 18.3 and 18.5) Practice test 2
3	15	13/12/21	Proportion, ratio, compound measures and time (chapters 6.1 – 6.4, 6.7 and 9)
	16	20/12/21	Christmas Holiday
	17	27/12/21	Christmas Holiday
	18	03/01/22	Christmas Holiday

3	19	10/01/22	Positive and negative indices, zero index, exponential equations, standard form (chapters 7.1 – 7.6 and 12.1 – 12.2)
	20	17/01/22	Metric units and area and volume conversions (chapter 26)
	21	24/01/22	Probability, Venn diagrams and relative frequency (chapter 33)
	22	31/01/22	Perimeter, area, volume and surface area (chapter 27)
	23	07/02/22	Practice test 3
	24	14/02/22	Half Term
4	25	21/02/22	Combined events, tree diagrams and conditional probability (chapter 34)
	26	28/02/22	Vectors, translations, addition and subtraction of vectors and multiplying a vector by a scalar (chapter 31.1 – 31.3)
	27	07/03/22	Bearings, trigonometry and Pythagoras' theorem (chapters 28 and 29.1 – 29.5)
	28	14/03/22	Reflections, rotations, translations and enlargement (chapter 32.1 – 32.8)
Revision & exams	29	21/03/22	Revision - number Practice test 4
	30	28/03/22	Revision – algebra and graphs
	31	04/04/22	Easter Holiday
	32	11/04/22	Easter Holiday
	33	18/04/22	Easter Holiday
Revision & exams	34	25/04/22	Revision – geometry and trigonometry
	35	02/05/22	Revision – vectors, probability and statistics
	36	09/05/22	Year 10 exam paper 1
	37	16/05/22	Year 10 exam paper 2
5	38	23/05/22	Calculating with upper and lower bounds and recurring decimals (chapters 2.6 – 2.7 and 4.11)
	39	30/05/22	Half Term
5	40	06/06/22	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	13/06/22	Increase and decrease by a given ratio and fractional indices (chapter 6.5 – 6.6 and 7.7 – 7.8)
	42	20/06/22	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	27/06/22	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 – 4 July – 5 September 2122			
6	1	05/09/22	Angles of elevation and depression, trigonometric curves and solving trigonometric equations (chapter 29.6 – 29.9)
	2	12/09/22	Sine rule, cosine rule, area of a triangle, trigonometry in 3-D and the angle between a line and a plane (chapter 30)
	3	19/09/22	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	26/09/22	Graphing inequalities and linear programming (chapter 14)
	5	03/10/22	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	10/10/22	Similar shapes, area and volume of similar shapes, congruent shapes and congruent triangles (chapter 23.2 – 23.6)
	7	17/10/22	Revision – exam practice papers
	8	24/10/22	Half Term
7	9	31/10/22	Direct proportion and inverse proportion (chapter 16)
	10	07/11/22	Symmetry and circle properties (chapter 24)
	11	14/11/22	Angle properties of circles (chapter 25.7 – 25.10)
	12	21/11/22	Speed-time graphs, area under a speed-time graph and non-linear travel graphs (chapter 17.5 – 17.8)
	13	28/11/22	Quadratic graphs, types of graphs, exponential functions, gradients of curves, solving equations graphically and sketching functions (chapter 18.4, 18.6 – 18.11)
	14	05/12/22	Functions, inverse functions and composite functions (chapter 20)
	15	12/12/22	Revision – exam practice papers
	16	19/12/22	Christmas Holiday
	17	26/12/22	Christmas Holiday
	18	02/01/23	Christmas Holiday
7	19	09/01/23	The gradient function, differentiation, gradient of a curve at a point and equation of a curve at a point (chapter 19)
Revision & exams	20	16/01/23	Catch-up and personal revision
	21	23/01/23	Catch-up and personal revision
	22	30/01/23	Year 11 internal exam paper 1
	23	06/02/23	Year 11 internal exam paper 2

Revision	24	13/02/23	Revision of number topics (chapters 1 – 10)
	25	20/02/23	Half Term
Revision	26	27/02/23	Revision of algebra and graph topics (chapters 11 – 21)
	27	06/03/23	Revision of geometry and mensuration topics (chapters 22 – 27)
	28	13/03/23	Revision of trigonometry, vectors and transformations topics (chapters 28 – 32)
	29	20/03/23	Revision of probability and statistics topics (chapters 33 – 37)
	30	27/03/23	Personal revision
	31	03/04/23	Easter Holiday
	32	10/04/23	Easter Holiday
	33	17/04/23	Easter Holiday
	34	24/04/23	
	35	01/05/23	
	36	08/05/23	
	37	15/05/23	
	38	22/05/23	
	39	29/05/23	Half Term
	40	05/06/23	
	41	12/06/23	
	42	19/06/23	
	43	26/06/23	