

		 TOWNSEND <small>CHURCH OF ENGLAND SCHOOL</small>	Department of Mathematics GCSE Mthematics - Foundation Tier Two Year Scheme of Work
	Week	10 Foundation	11 Foundation
Autumn 1	1	UNIT 1 Indices , Decimals and Calculations (Directed Numbers , Order of Operation, Laws of Indices, Properties of Numbers, Decimals and Fraction Calculations including fraction of an amount, Fraction Decimal Percentages conversion)	Unit 1 Inequalities (Solving Inequalities, RepresentingInequalities on a Number Line, Solve Three Part Inequalities)
	2		
	3		Unit 2 Rounding & Estimation (Estimating ,Significant Figures, Standard Form, and Error Intervals)
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	6		
Autumn 2	7	Half Paper Calculator (Week 7)	Full Paper Calculator (Week 7)
	8	UNIT 2 Expressions (Algebraic Notation, Laws of Indices, Collecting Terms, Multiplying Terms, Expanding Brackets, Factorising Linear Expressions, Substitution, Forming and Solving Linear Equations)	Unit 3 Probability (Basic Probability, Sample Space, Venn Diagrams, Frequency Tree, Two Way tables)
	9		
	10		
	11	UNIT 3 Percentages (Percentage Change, Profit and Loss, Interest , Money Problems)	Trial Exam Paper 1 Non - Calculator (Week 11)
	12		Trial Exam Paper 2 Calculator (Week 12)
	13	Full Paper Non - Calculator (Week 13)	Unit 4 Area & Volume (Area of Triangles, Parallelograms, trapezia and compound Shapes , Area and Circumference of Circles, Semi /quarter Circles, Properties of 2D and 3D Shapes, Plan, Side, Front Elevations, Surface area and volume of cubes and cuboids
	14	UNIT 3 (Continue...) Percentages (Percentage Change, Profit and Loss, Interest)	
	15		
Spring 1	16	Unit 4 Averages, Range & Representing Data (Types of Data, Averages, Frequency Table, Two Way Tables, Bar Charts, Pie Charts, Stem and Leaf Diagrams, Frequency Polygons ,Scatter Graphs and correlation,time series graphs.)	Unit 5 Quadratics & Non Linear Graphs (Expand double brackets, . Factorise quadratic expressions, Difference of Two Square, Solving Quadratic equations (a=1 only) .Plot quadratic graphs.Recognise the roots and turning points of a quadratic graph)
	17		
	18		Unit 6 Ratio and Proportion Convert Between Ratios and Fractions, Write Ratio in 1 :n ,
	19		
	20	Half Paper Calculator (Week 20)	Unit 6 (cont ...) Ratio and Proportion Direct and Inverse Proportion, Graphs of Direct and Inverse Proportion, Proportion Problems
Spring 2	21	Unit 5 Using Formulae & Equations (Substitution, Rearranging Formulae, Function Machines, Equations, Simultaneous Equations)	Unit 7 Measures & Real Life Graphs (Metric Conversion, Scale Diagrams, Speed, Distance & Time (Convert between units of time. Calculate time intervals. Calculate speeds, distances and times. Interpret and use distance time graphs. Know that the gradient of a distance time graph represents the speed of the object and calculate the speed from the graph , Density and Pressure)
	22		
	23		
	24		Trial Exam Paper 3 Calculator (Week 23)
	25	Unit 6 Angles , Parallel Lines Polygons ,Bearings ,	Unit 8 Vectors & Similar Shapes Congruency and Similarity,
	26	Unit 6 Factors & Multiples (Factors, Multiples, Prime Factors, HCF, LCM , Worded Problems)	Unit 9 Constructions and Loci (Perpendicular bisector, angle bisector, Loci , Constructing Triangle SSS, ASA, SAS
	27		
Summer 1	28	Full Paper Calculator (Week 28)	
	29	Work Experience	
	30	UNIT 7 Sequences (Arithmetics , Geometric , Fibonnaci, Using nth term, "Rearrange formulae involving one or two steps. Find missing terms and continue an arithmetic / geometric sequence /Fibonacci sequence. Use term to term rules,Find and use the nth term of an arithmetic sequence.)	
	31		
Summer 2	32	Unit 8 Co-ordinates & Linear Graphs (Plot co-ordinates. Construct and recognise graphs parallel to the axes (e.g. $y = 4$), $y = x$ and $y = -x$. Find the midpoint of a pair of co-ordinates.Plot linear graphs. Work out the gradient of a line. (Recognise parallel lines) Work out the equation of a linear graph. Identify the gradient and y intercept from the equation or graph.	GCSE Exams
	33		
	34		
	35	Full Paper 1 - Non Calculator and Paper 2 - Calculator (Week 35)	
	36	Unit 9 Pythagoras Theorem and Trigonometry (Identify Hypoteneuse, Opposite, adjacent lengths,	
	37		
	38	Unit 10 Transformations and 2D representation of 3D shapes (Translation, Reflection, Rotation and Enlargment, Symmetry, Properties of 2D and 3D shapes , Plans and Elivations)	
39			