

## Year 9 Higher Scheme of Learning

	Week	Topic	Notes	
Term 1	1	Indices	Inc. negative and fractional indices	
	2	Prime factorisation, HCF and LCM	Product of prime factors. Use Venn diagrams to find HCF and LCM	
	3	Surds	Inc. rationalising denominators	
	4	Area, Volume, Scale Factors	inc ratio for L, A, V	
	5	Rearranging formulae	Inc. where the subject is in more than one term	
	6	<b>Revision, exam, review</b>		
	7	Solving more complex linear equations	Inc. fractional equations where variable is in the denominator	
	8	Expanding and factorising quadratics	Inc. difference of two squares	
	<b>HALF TERM</b>			
	9	Solving quadratics	By factorising and using the formula. Create quadratic equations from word problems	
	10	Algebraic fractions	Simplifying, adding, subtracting, multiplying and dividing	
	11	Simultaneous equations (1)	Both linear and quadratic	
	12	Simultaneous equations (2)	Both linear and quadratic	
	13	Sequences (1)	Linear, quadratic, geometric and Fibonacci style sequences	
	14	Sequences (2)	Linear, quadratic, geometric and Fibonacci style sequences	
15	Averages and range	Inc. quartiles, averages from tables, stem and leaf diagrams, etc.		
<b>CHRISTMAS</b>				
Term 2	16	Box-plots	Drawing and interpreting	
	17	Pie charts, scatter graphs, cumulative frequency	Inc. comparing data sets. One lesson on capture-recapture method of sampling	
	18	Histograms	Drawing, interpreting, find mean and median	
	19	Fractions and percentages (1)	Converting between FDP, recurring decimals to fractions, simple and compound interest	
	20	<b>Revision, exam, review</b>		
	21	Fractions and percentages (2)	Reverse percentages and percentage change	
	<b>HALF TERM</b>			
	22	Ratio and proportion	Challenging problems on rich	
	23	Direct and inverse proportion	Inc. squares, cubes, roots, etc.	
	24	Angles	Recap parallel lines and interior/exterior angles. Focus on problems involving algebra	
	25	Circle theorems (1)	Cover all theorems and look at proofs	
	26	Circle theorems (2)	Cover all theorems and look at proofs	
	27	Pythagoras and SOHCAHTOA	Inc. Pythagoras and trigonometry in 3D	
28	Trigonometry	Sine and cosine rules (inc. bearings)		
<b>EASTER</b>				
Term 3	29	Trigonometry	Continue with sine and cosine rules, inc. area of triangles and exact values	
	30	Linear graphs	Equations of parallel and perpendicular lines. Use Core 1 textbook - coordinate geometry chapter	
	31	<b>Revision, exam, review</b>		
	32	Quadratic graphs and completing the square	Sketch quadratics, solve by completing the square and use to find turning point of curves	
	<b>HALF TERM</b>			
	33	Cubic, reciprocal and exponential graphs	Plotting and sketching	
	34	Inequalities	On a number line, solving linear inequalities and graphical inequalities	
	35	Trigonometric graphs	Inc. using graphs to solve trigonometric equations	
	36	Graph transformations	Using Desmos	
	37	Review	Go over prior learning and use time to develop problem solving techniques	
	38	<b>Enrichment Week</b>		
39	Review	Go over prior learning and use time to develop problem solving techniques		