## Term 1

Unit	Detailed topic	No. of lesson s	CTL Topics	Max grade	Link to resources
Number	Rounding to decimal places Rounding to significant figures Estimation Using a calculator	3	Rounding	4	Rounding & Approximati on   Dr Austin Maths
	Converting recurring decimals to fractions	3		7	Decimals
	Calculate fractions of amounts and in reverse	1	Ordering FDP	4	Dr Austin Maths  Fractions   Dr Austin Maths
	Add and subtract fractions & mixed numbers	2	Express a given number as a fraction of another number	3	
	Multiply & divide fractions & mixed numbers	2		4	

Algebraic Manipulation A	Index laws for brackets, multiplication and division including zero	2	3ху х 5ху	5	Laws of Indices   Corbettmath
	Fractional and Negative fractional indices	2		5	Negative Indices
	Convert and correct Standard form $a \times 10^n$ Calculating using sf Solve problems involving standard form (incl. non calculator methods)	3		4	Standard Form   Dr Austin Collecting
Σ	Collecting like terms	1		NA	Like Terms
Igebraic	Multiply a single term over a bracket (including 3(x+1) – 8(2x-5))	1		3	Dr Austin  Expanding &  Factorising
1	Factorise single bracket -Take out common factors	1		4	Dr Austin Maths
	Expanding double/triple brackets	2		6	Quadratic Expressions
	Factorising quadratics including a>1 and difference of two squares	4		7	& Equations   Dr Austin
	Simplify ratio Write a ratio as fraction	1		4	Ratio & Proportion
Ratio & Proportion	divide a quantity in a given ratio Shared ratio when given part or difference Combining ratio (including sharing)	3		4	<u>Dr Austin</u> <u>Maths</u>
	Direct & inverse proportion – unitary method	2		4	
	Best buys Recipes Currency conversion	3		3	
	Convert between standard units of mass, length, area, volume and capacity	2		3	

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Ŧ.	express integers as product of powers of prime factors	1		3	Factors, Multiples &
Primes, LCM, HCF	find highest common factors (HCF) and lowest common multiples (LCM) Include worded exam questions and already in index form	2		5	Primes   Dr Austin Maths HCF & LCM   Mathsgenie
Statistical Measures	calculate the mean, median, mode and range for a discrete data set Find the interquartile range from a discrete data set	2		4	Averages   Mathsgenie  Averages - Frequency Tables   Mathsgenie
	Mean, mode, median and range from frequency table	2		4	<u>iviatriogenie</u>
	Estimate for the mean, and find modal class, median and range for grouped data.	1		5	
Linear Equations & Inequalities	Substitution USE BRACKETS e.g. 2(-3) = -6	1		4	Substitution  Dr. Austin
	solve linear equations, with integer or fractional coefficients, in which the unknown appears on either or both sides	4	Angles in a triangle, Area and perimeter	5	Euations & Inequalities   Dr Austin   Maths
	Forming and solving equations	2	Angles in a triangle, Area and perimeter	5	
	solve linear inequalities and represent the solution on a number line (negative flips the sign!) Including with double inequality	2		5	

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Pythagoras' & Trigonometry	use Pythagoras' theorem in applied questions	2		4/5	Pythagoras   Dr Austin
	Use SOHCAHTOA	3		5	<u>Maths</u>
	Mixed Pythagoras and SOHCAHTOA problems	2		5	Pythagoras <u>&amp;</u> Trigonometr
	3D Trigonometry and Pythagoras	3		7	y   Dr. Austin
	Angles of elevation and depression including 3D	1		7	Pythagoras  & Trigonometr  y   Mathsgenie
Linear Graphs	Plot linear graphs (Use table function)	1		3	Coordinates & Linear Graphs   Dr
	Calculate gradient of a drawn line and when given 2 points.	1		3	<u>Austin</u> <u>Maths</u>
	Finding the equation of a line given 2 coordinates or gradient and a point.  Midpoint and length of a line segment	2		6	
	Parallel and perpendicular lines	2		6/7	

	Change the subject, include subject needing factorising	4		5	Changing the Subject   Dr.
Changing the Subject & Proportion	set up problems involving direct or inverse proportion and relate algebraic solutions to graphical representation of the equations	4		7	Austin  Rearranging Harder Formula   Mathsgenie  Direct & Inverse Proportion  Direct & Inverse Proportion
Ş	solve simple percentage problems, including percentage increase and decrease using multipliers	2	express a given number as a percentage of another number	4	Percentages   Dr Austin   Maths
ıtage	use reverse percentages	2		4	
Percentages	use compound interest and depreciation including multiple interest rates and reverse problems	3		7	
	Percentage change	1		5	
	Draw cumulative frequency diagrams	1		6	Cumulative Frequency & Histograms
Graphical Representation of Data	Use cumulative frequency diagrams to find median and IQR and more/less than a value.	2		6	Dr Austin  Maths
	Drawing histograms	1		7	
	Interpret a histogram Complete a table and histogram Find the median etc	2		7	