

# Maths Long Term Plan Year 7



## Temperance Term

<b>W/C</b>	1	2	3	4	5	6	7	<b>HALF TERM</b>
Topic	<b>Number 1</b>						Proportional Reasoning 1	
Core learning for all sets Core learning for sets 1-2	<b>Place Value</b> Write numbers as words and vice versa. Up to 1 billion. State the value of digits within a number. Up to 1 billion. Order numbers. Positive integers up to 1 billion, small numbers (decimals), both ascending and descending. Place numbers on a numberline. Working with measurement scales.	<b>Baseline Assessment</b>	<b>Four operations</b> Addition and subtraction. Column method, different number of digits. Borrowing. Multiplication. Column or grid method for long multiplication. Positive integers. Decimals if secure. Up to 4-digit numbers by 2-digit numbers. Division. Long and short division, formal methods. Positive integers, decimals if secure. Move pupils away from using "remainders". Inverse operations for checking calculations. Create related arithmetic facts.	<b>Number properties</b> Squares, cubes and roots. Calculate square and cube numbers. Recall square numbers up to 144. Recall cube numbers up to 125. Recall square and cube roots up to 12 and 5 respectively. Higher powers and roots. Simplify using index notation. Calculate positive integer powers higher than 3. Use higher roots. Estimate powers and roots of any given positive number. Multiples. List multiples. Identify common multiples of two or three numbers. Identify the LCM of two or three numbers by listing. Factors. Find all factors of a number by listing. Find HCF of two or three numbers. Recap divisibility tests. Primes. Use factor definition of primes. Find and recall prime numbers under 100. Express a number as a product of primes in index form. Use the HCF and LCM of two numbers using prime factorisation and a Venn diagram. BIDMAS. Positive integers only at this point. Roots and indices should be included. Insert brackets to make a calculation correct.		<b>Fractions</b> Unit fractions. Write unit fractions to describe shaded diagrams. Calculate unit fractions of quantities using written methods. Non-unit proper fractions. Write fractions to describe shaded diagrams. Calculate fractions of quantities using written methods. "Reverse" fractions of quantities. Improper fractions and mixed numbers. Write fractions to describe shaded diagrams. Convert mixed numbers into improper fractions and vice versa.		
Extension/ Challenge: Open middle, goal free, exam questions, "by example", SSDD are good resources but always choose problems based on the current topic.								
Assessment					Progress Check			
<b>W/C</b>	8	9	10	11	12	13	<b>CHRISTMAS</b>	
Topic	<b>Assessment 1</b>	<b>Proportional Reasoning 1</b>						
Core learning for all sets Core learning for sets 1-2	<b>Revision and delivery of assessment</b>	<b>Fractions</b> Equivalent fractions/simplifying fractions. Use multiples to find equivalent fractions. Use LCM to find common denominator for 2 or more fractions. Find factors (HCF) to simplify fractions to their lowest terms. Express one quantity as a fraction of another. Arithmetic with fractions. Add, subtract, multiply and divide fractions (including fractions with different denominators, improper fractions and mixed numbers). Give answers in simplest form.	<b>Ratio</b> Ratios. Write a ratio to describe a shaded diagram. Simplifying ratios. Use common factors (HCF) to fully simplify ratios. Do this for 2-part and 3-part ratios, as well as ratios with different units. Convert a ratio to a form 1:n or n:1. Equivalent ratios. Use multiples to find equivalent ratios. Given an initial ratio, find an equivalent ratio where one part is given. Sharing in a given ratio. Use division and multiplication to do this for 2-part and 3-part ratios.	<b>Proportion</b> Problems involving direct proportion. Use unitary method where possible to solve problems involving the following: best buys, rates of pay, recipes. Ratios, factors and multiples may also be used but the unitary method must be understood. Inverse proportion. Simple examples only, to be solved less formally.				
Extension/ Challenge: Open middle, goal free, exam questions, "by example", SSDD are good resources but always choose problems based on the current topic.								
Assessment	Formal, summative				Progress Check			

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## Justice Term

<b>W/C</b>	14	15	16	17	18	19	<b>HALF TERM</b>
Topic	Directed Number	Algebra 1					
Core learning for all sets Core learning for sets 1-2	Directed Number	Expressions	Brackets	Substitution			
Extension/ Challenge: Open middle, goal free, exam questions, "by example", SSDD are good resources but always choose problems based on the current topic.							
Assessment		Progress Check			Progress Check		
<b>W/C</b>	21	22	23	24	25	26	
Topic	<b>Assessment 2</b>	<b>Geometry 1</b>					<b>EASTER</b>
Core learning for all sets Core learning for sets 1-2	Revision and delivery of assessment	2D shapes	Perimeter	Area			
Extension/ Challenge: Open middle, goal free, exam questions, "by example", SSDD are good resources but always choose problems based on the current topic.							
Assessment	Formal, summative				Progress Check		

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## Courage Term

<b>W/C</b>	27	28	29	30	31	31	<b>HALF TERM</b>	
Topic	Geometry 1		Algebra 2					
Core learning for all sets Core learning for sets 1-2	Surface Area		Solving equations		Rearranging formulae			
Extension/ Challenge: Open middle, goal free, exam questions, "by example", SSDD are good resources but always choose problems based on the current topic.								
Assessment		Progress Check			Progress Check			
<b>W/C</b>	32	33	34	35	36	37		
Topic	Assessment 3	Algebra 2		Statistics 1			<b>SUMMER</b>	
Core learning for all sets Core learning for sets 1-2		Inequalities		Data collection	Representing data (univariate)	Representing data (bivariate)		
Extension/ Challenge: Open middle, goal free, exam questions, "by example", SSDD are good resources but always choose problems based on the current topic.								
Assessment	KS3 Internal Exams				Progress Check			