

Maths Long Term Plan Year 9



Temperance Term

W/C	1	2	3	4	5	6	7	HALF TERM	
Area of Study	Geometry 3						Assessment		
Core learning for all sets Core learning for sets 1 and 2	3D properties Count faces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres. Identify planes of symmetry. Construct and interpret isometric drawings. Draw plans and elevations. Given plans and elevations, sketch a 3D shape. Draw isometrically from plans and elevations and vice versa.	Metric measurements Recap of place value. Multiply and divide by powers of 10. Convert between larger and smaller metric units. Calculate perimeters of irregular shapes given their side lengths. Calculate the perimeter of regular shapes given one side. Calculate the perimeter of rectangles given length and width. Calculate perimeters when lengths are given in different metric units. Calculate perimeters of L- and T-shapes. Calculate the area of rectilinear shapes including with decimals and/or fractions. Find the length given the area and width of a rectangle. Solve problems involving area and perimeter of rectilinear shapes and algebra. Convert between different metric units of area.	Volume Count cubes to find volume. Calculate the volume of a cube or cuboid. Calculate the volume of composite shapes made from cubes or cuboids. Convert between different metric units of volume. Calculate the area of a triangle (recap). Calculate the volume of a triangular prism. Calculate the volume of a prism with a composite shape cross-section. Recap circle definitions and properties. Calculate area of a circle (recap). Calculate the volume of a cylinder. Calculate in terms of pi.						
Opportunities for 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			Formal, summative		
W/C	8	9	10	11	12	13		CHRISTMAS	
Area of study	Algebra 5								
Core learning for all sets Core learning for sets 1 and 2	Equations and graphs Solve linear equations with one unknown on one side of the equation. Start with positive integer coefficients and solutions. Move on to negative, decimal, fractions coefficients and solutions. Solve linear equations with the unknown on both sides of the equation. Plot linear graphs using a table. Plot linear graphs using the gradient-intercept method. Identify and interpret gradients and intercepts both graphically and algebraically.	Simultaneous equations Solve linear simultaneous equations graphically. Solve linear simultaneous equations algebraically using substitution. Solve linear simultaneous equations algebraically using elimination.	Inequalities Understand the notation involved. Verbally express an inequality and suggest possible numbers that work. Write inequalities on number lines and vice versa. List integer solutions to double inequalities. Solve linear inequalities with the unknown on one side. Represent the answer on a number line. Solve linear inequalities with the unknown on both sides. Solving double inequalities and represent the answer on a number line.						
Opportunity for 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				

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Justice Term

W/C	14	15	16	17	18	19	HALF TERM
Area of study	Geometry 4					Assessment	
Core learning for all sets Core learning for sets 1 and 2	Surds		Pythagoras		Trigonometry		
Opportunity for 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			Formal, summative	
W/C	21	22	23	24	25	26	EASTER
Area of study	Algebra 6						
Core learning for all sets Core learning for sets 1 and 2	Quadratic expressions		Quadratic graphs		Quadratic equations		
Opportunity for 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		

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Courage Term

W/C	27	28	29	30	31	31	HALF TERM	
Area of study	Statistics 3							
Core learning for all sets Core learning for sets 1 and 2	Averages - Ungrouped		Averages - Grouped		Graphical representations			
Opportunity for 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			
W/C	32	33	34	35	36	37	SUMMER	
Area of study	Assessment	Geometry 5						
Core learning for all sets Core learning for sets 1 and 2		Reflections, rotations and translations	Enlargements		Similarity			
Opportunity for 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				