



MATHEMATICS: Curriculum Overview

Year 9

Half Term	Topic studied	What will I learn?	How will I be assessed?
Year 9 Autumn 1	<i>Unit 1 – Calculations</i> <i>Unit 2 – Expressions</i>	Understand place value in whole numbers and decimals. Round to an appropriate degree of accuracy Use the four operations including decimal and negative numbers. Simplify algebraic expressions. Expand brackets. Form algebraic expressions. Work with algebraic fractions	Test in penultimate week before October HT. <i>(plus marking of exercise books throughout the term)</i>
Year 9 Autumn 2	<i>Unit 3 – Handling Data</i> <i>Unit 4 – Fractions, Decimals & Percentages</i>	Represent data with a variety of graphs, including Pie charts, bar charts, pictograms Find averages of a discrete list of data Find averages from grouped and ungrouped frequency tables. Understand different sampling methods.	Test in the week before Xmas break. <i>(plus marking of exercise books throughout the term)</i>
Year 9 Spring 1	<i>Unit 4 – Fractions, Decimals & Percentages (ctd)</i> <i>Unit 5 – Expressions & Equations</i> <i>Unit 6 – Angles & Polygons</i>	Order fractions decimals & percentages. Calculate fractions of a quantity. Complete the four operations with fractions. Calculate percentage of a quantity. Calculate percentage change. Substitute into formulae and expressions. Factorise linear and quadratic expressions. Solve one and two step equations. Solve equations with unknowns on both sides. Recognise and label parallel lines, perpendicular lines, acute, obtuse, reflex and right angles. Use properties of angles at a point, vertically opposite angles and angles on a straight line to calculate missing angles. Recognise corresponding, alternate and co interior angles on parallel lines. Find the sum of the interior and exterior angles of regular and irregular polygons. Identify and solve problems using congruent shapes by recognising the sets of conditions: SSS, SAS, ASA, and RHS.	No formal test this half term. <i>(Marking of exercise books throughout the term)</i>
Year 9 Spring 2	<i>Unit 7 – Probability</i>	Use language such as certain and likely to describe probabilities. Find the theoretical probability of equally likely outcomes. Understand and use relative frequency.	Test in the week before Easter break. <i>(plus marking of exercise books throughout the term)</i>

Year 9 Summer 1	<i>Unit 8 – Working in 2D</i>	Convert units of measurements such as cm to mm, m to cm, km to m, mm to m and vice versa. Use scale drawings and maps. Calculate area. Recognise lines of symmetry and rotational symmetry on 2D shapes. Identify, construct and describe transformations. Use Pythagoras theorem.	No formal test this half term. <i>(plus marking of exercise books throughout the term)</i>
	<i>Unit 9 – Measures & Accuracy</i>	Use Standard units. Use approximations to estimate calculations. Use upper and lower bounds.	
Year 9 Summer 2	<i>Unit 10 – Co-ordinate Geometry</i>	Read and plot coordinates in all 4 quadrants. Plot and sketch straight line graphs. Understand and use the equations of a straight line $y = -mx + c$. Use graphs to find approximate solutions to equations.	End of Year Exams, usually first week back after May half term. Setting for Y10 will be based on performance across the year, but most heavily based on summer exam.
	<i>Unit 11 – Equations and Inequalities</i>	Solve quadratic equations. Solve simple simultaneous equations. Solve inequalities.	