



The Grey Coat Hospital

Key Stage Three Curriculum Plan - *Subject: Mathematics*



Year 7

Half Term (HT)	Topic Area / Focus
HT1	Multiplication - multiply 3x3 digits Division - giving an exact decimal answer, composite division that includes a mixture of fraction lines and divide signs Decimals - converting decimals to fractions, four operations with decimals Unit Conversions - using metric conversions, distinguish between metric and imperial units
HT2	Rounding - to decimal places and significant figures, estimating calculations by rounding Factors, Multiples and Primes - HCF and LCM Fractions (Multiplying/ Dividing) - composite fraction calculations involving three or more fractions Negative Numbers (Adding/Subtracting) Negative Numbers (Multiplying/ Dividing)
HT3	Fractions (Adding/ Subtracting) - Adding and subtracting mixed numbers Indices (Order of Operations) - Laws of indices, negative and zero indices Algebraic Expressions – Simplifying algebraic expressions including with division, substitution with multiple operations
HT4	Proportion - Find missing values in quantities that are directly and inversely proportional Angles - Measure and draw angles, find missing angles using angles in a half turn, full turn and vertically opposite angles.
HT5	Solving Linear Equations - Solve two step equations with multiplication and division Percentages - Order fractions, decimals and percentages, find the percentage of an amount with and without a calculator Properties of 2D Shapes - Solve problems using angle properties of triangles and quadrilaterals
HT6	Area and Perimeter – compound shapes and reverse problems Collecting and Presenting Data - Bar chart, pictogram, stem and leaf diagram, scatter graphs Pie Charts



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Year 8	
Half Term (HT)	Topic Area / Focus
HT1	Prime Factorisation, HCF and LCM Laws of Indices (Algebraic) – combined problems with multiplication, division and power law Brackets - double bracket expansion, single bracket factorising with complex factors Sequences - finding the nth term of simple quadratic and cubic sequences
HT2	Solving Equations – with unknowns on both sides of the equation Ratio - Sharing in an amount, ratio shares when given one amount or a difference Formulae - substitution, changing the subject of a formula using more than one step Lengths and Perimeter - Arc length, Pythagoras' Theorem
HT3	Probability - Venn Diagram, Tree Diagram, Sample Spaces Area – Circles and Compound Shapes - Area of sectors and compound shapes Angles - interior and exterior angles in polygons, corresponding and alternate angles
HT4	Ratio application - map scales, best buys, exchange rates, inverse proportion Standard Form - multiplying and dividing Inequalities - Solve double inequalities
HT5	Straight Line Graphs - Plot straight lines, find the equation of a line from a graph and from two coordinates Percentage Increase/ Decrease - reverse percentages, successive percentage change Surface Area and Volume - triangular prisms, parallelogram and trapezoid prisms, cylinders
HT6	Analysing Data - averages from grouped frequency table, frequency polygons and histograms



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Similar Shapes- finding missing lengths using similar shapes, finding missing angles and sides using trigonometry in right-angled triangles
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