Curriculum Sequencing Grid: Y7 *Mathematics*

Year 7 Maths	Term 1	Term 2	Term 3
Unit (Tablet in 39 week plan)	Problem Solving, Algebraic Thinking & Place Value and Proportion	Applications of Number, Directed Number & Fractional Thinking	Lines and Angles & Reasoning with Number
Key Retainable Knowledge (Required for Y11/13) • What… How…. Why….	Describe and continue sequences in pictorial and numerical form (linear and non-linear) Understand algebraic notations when using function machines, forming and substituting into expressions. Representing graphically and using bar models. Understand equality and equivalence to solve equations and collect like terms Ensure confident number skills by exploring number ordering, sequences, integers and place value, number lines, powers of ten, rounding and averages and range. Represent simple and complex figures on number lines, convert FDP for multiples of tenths and quarters; using these skills continuously to interpret different data representations	Explore a range of methods for basic number functions and problem solving involving money, frequency trees and tables. Comprehend methods of multiplying and dividing by powers of ten, basic unit conversions, HCF/LCM, finding areas of basic shapes, solving functions and equations and finding fractions of an amount. Efficient use of calculators, order of operations and ordering directed numbers with and without context. Represent fractions as diagrams and on number lines, add and subtract fractions with same or different denominators and using a mixture of FDP in calculations	Draw and measure using mathematic equipment, use notation for lines and angles, recognise types shapes, draw triangles accurately, draw and interpret pie charts Reason geometrically using angles (around a point, straight line, vertically opposite) and calculate missing angles in triangles and quadrilaterals Use number sense for mental arithmetic strategies and use unknown facts to derive other facts including algebraic expressions Understand set notation, be able to draw and interpret Venn diagrams and calculate the probability of a single event Know types of numbers, including prime factorisation, powers and roots and use counter examples
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	Sequence, linear, non-linear, term, term to term, function, equations, substitute, graphically, plotting, coordinates, collect like terms, integer, compare, order, place value, significant figure, powers, rounding, range, median, number lines, decimals, hundredths, tenths, quarters, interpret, convert, equivalent, coefficients, simplifying, index form, fractions, percentages.	Frequency, frequency tree, multiply, divide, power, conversions, factor, multiple, HCF, LCM, area, equations, functions, order of operations, directed numbers, ordering, fraction, denominator, numerator, FDP, coefficients Extension (standard form, area of trapezium, algebraic HCF/LCM, improper fractions, negative square root, algebraic fractions)	Angles, ruler, protractor, notation, parallel, perpendicular, triangle, quadrilateral, polygon, SSS, SAS, ASA, interpret, pie chart, mental arithmetic, strategy, derive, facts, set, set notation Venn diagram, probability, event, prime, root, square, cube, power, prime factorisation Extension (standard form, proof,
Opportunities for Reading	Exemplar questions Useful websites; Hegarty Maths, Mr Barton Maths, Corbet maths, BBC Bitesize	Exemplar questions Useful websites; Hegarty Maths, Mr Barton Maths, Corbet maths, BBC Bitesize	Exemplar questions Useful websites; Hegarty Maths, Mr Barton Maths, Corbet maths, BBC Bitesize
Developing Cultural Capital (exposure to very best-essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)	UKMT maths challenges, STEM clubs and trips TBA	UKMT maths challenges, STEM clubs and trips TBA	UKMT maths challenges, STEM clubs and trips TBA
Cross Curricular Links (Authentic Connections)	Science – plotting graphs of outcomes		DT – accurate drawings using rulers, protractors, compass'
Key Assessment	Sequences topic test Algebraic Notations topic test Equality and Equivalence topic test Place Value and Ordering topic test FDP equivalence topic test LC1 Assessment	Solving problems with addition and subtraction topic test Solving problems with multiplication and division topic test Four operations with directed number topic test Addition and subtraction of fractions topic test LC2 Assessment	Constructing, measuring & geometric notation topic test Developing geometric reasoning topic test Developing number sense topic test Sets and probability topic test Prime numbers and proofs topic test LC3 Assessment