21/22: Year 9/10 Curriculum and Assessment Map

THE JUBILEE ACADEMY

Year 9&10	Subject Mathematics					
Intent						
Implementation	**September - December**		**January - March**		**April - July**	
	N1: Integers, place value and decimals N1: order positive and negative integers and decimals; use the symbols =, ≠, <, >, ≤, ≥ N2: apply the four operations, including formal written methods, to integers and decimals– both positive and negative; understand and use place value (e.g. when working with very large or very small numbers, and when calculating with decimals) N3: recognise and use relationships between operations, including inverse operations (e.g. cancellation to simplify calculations	S1: Properties of shapes, parallel lines and angle facts G1: use conventional terms and notation: G3: apply the properties of angles D1: Tables, charts and graphs G14 use standard units of measure and related concepts (length, area, volume/capacity, mass, time, money, etc.) G15 measure line segments and angles in geometric figures … S2 interpret and construct tables, charts and diagrams,	N2: Fractions, decimals and percentages N1: order fractions; use the symbols =, ≠, <, >, ≤, ≥ N2: apply the four operations, including formal written methods, to simple fractions (proper and improper) and mixed numbers N8: calculate exactly with fractions … N10: work interchangeably with terminating decimals and their corresponding fractions Algebra Review Aa Distinguish the different roles played by letter symbols in algebra, using the correct notation Ab Distinguish in	N3: Indices, Powers, Roots, Factors, Multiples and Primes N4: use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation theorem [S] N5: apply systematic listing strategies **Areas and Perimeter** G14: use standard units of measure and related concepts (length, area,	**Areas and Perimeter** G14: use standard units of measure and related concepts (length, area, volume/capacity, mass, time, money, etc.) G16: know and apply formulae to calculate: area of triangles, parallelograms, trapezia G17: calculate: perimeters of 2D shapes	Representing Data Review SPg Produce charts and diagrams for various data types SPi Interpret a wide range of graphs and diagrams and draw conclusions SPk Recognise correlation and draw and/or use lines of best fit by eye, understanding what these represent Revision for End of year test N1: Integers, place value and decimals

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	and expressions); use conventional notation for priority of operations, including brackets, powers, roots and reciprocals N14: estimate answers; check calculations using approximation and estimation, including answers obtained using technology N15: round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures) **A1: Expressions, substitution, expanding and factorising** A1 use and interpret algebraic notation, including: A2 substitute numerical values into formulae and expressions, including scientific formulae A3 understand and use the concepts and vocabulary of expressions, equations,	including frequency tables S1: Properties of shapes, parallel lines and angle facts G1: use conventional terms and notation: G3: apply the properties of angles S2: Interior and exterior angles of polygons G3: derive and use the sum of angles in a triangle (e.g. to deduce and use the angle sum in any polygon, and to derive properties of regular polygons) G11: solve geometrical problems on coordinate axes A3: Equations and inequalities A21 translate simple situations or	meaning between the words 'equation', 'formula' and 'expression' Ac Manipulate algebraic expressions by collecting like terms, by multiplying a single term over a bracket, and by taking out common factors Af Derive a formula, substitute numbers into a formula Probability SPm Understand and use the vocabulary of probability and probability scale SPn Understand and use estimates or measures of probability from theoretical models (including equally likely outcomes), or from relative frequency SPo List all outcomes for single events, and for two successive events, in a systematic way and derive relative probabilities SPp Identify different mutually exclusive outcomes and know that the sum of the probabilities of all these outcomes is 1 SPs Compare experimental data and theoretical probabilities	volume/capacity, mass, time, money, etc.) G16: know and apply formulae to calculate: area of triangles, parallelograms, trapezia G17: calculate: perimeters of 2D shapes		S1: Properties of shapes, parallel lines and angle facts N2: Fractions, decimals and percentages

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	formulae, identities, inequalities, terms and factors A4 simplify and manipulate algebraic expressions A5 understand and use standard mathematical formulae; rearrange formulae to change the subject A6 know the difference between an equation and an identity; argue mathematically to show algebraic expressions are equivalent, and use algebra to support and construct arguments A7 where appropriate, interpret simple expressions as functions with inputs and outputs	procedures into algebraic expressions or formulae; derive an equation, solve the equation and interpret the solution A22 solve linear inequalities in one variable; represent the solution set on a number line	SPt Understand that if they repeat an experiment, they may – and usually will – get different outcomes, and that increasing sample size generally leads to better estimates of probability and population characteristics			
Impact	***AP1*** ***End Aut 2*** ***Diagnostic Assessment***		***AP2*** ***End Spring 1*** ***Diagnostic Assessment***		***AP3*** ***End Summer 1*** ***Diagnostic Assessment*** End of year test. (GCSE past paper questions)	