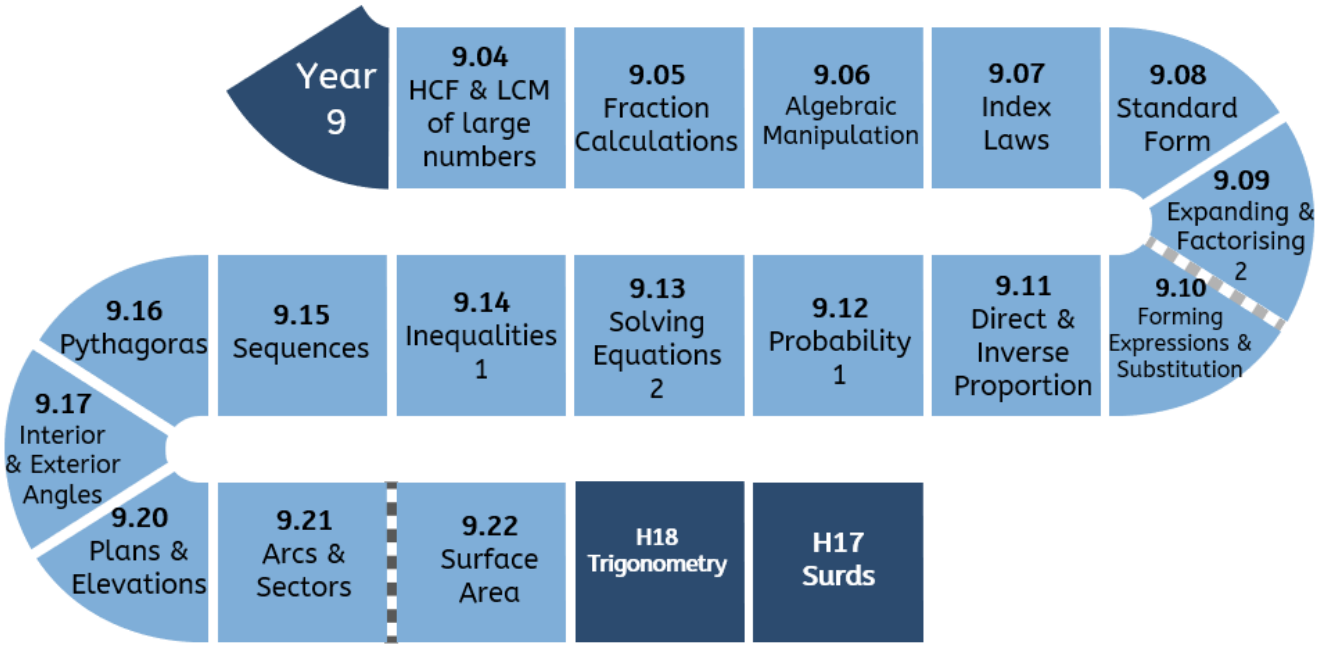
Holland Park School | *Year 9 Maths 2025/2026*



Overview	Year 9 Topics 2025/2026
Assessment	Fortnightly Topic Assessment
Homework	Sparx Maths (set every Wednesday, due for following Wednesday)
Resources	Sparx Maths, Corbett Maths, Maths Genie
Key Terminology	Estimate, significant figure, truncation, error interval, prime, factor, multiple, prime factor decomposition, reciprocal, improper, variable, term, coefficient, expression, identity, formula, indices, standard form, expand, factorise, quadratic, direct proportion, inverse proportion, unitary, exchange rate, probability, systematic, mutually exclusive, outcome, element, set, intersection, union, complement, inequality, arithmetic sequence, geometric sequence, hypotenuse, polygon, interior, exterior, tessellation, vector, magnitude, scalar, resultant, transformation, translation, reflection, rotation, enlargement, congruent, plan, elevation, circumference, cylinder, cone, sphere

Topics	Key content	Sparx Clips
9.04 HCF and LCM	Use prime factor decomposition and Venn diagrams in order to find the HCF and LCM of large values.	U211, U751, U529, U236, U739, U250
9.05 Fractions	Apply all four operations using non calculator methods when working fractions and mixed numbers involving different denominators, finding the fraction of an amount, writing one number as a fraction of another and to find the reciprocal of an integer, decimal or fraction.	U736, U692, U793, U475, U224, U544, U538, U881, U916, U163
9.06 Algebraic Manipulation	Collecting like terms and simplifying expressions involving all four operations, the identity symbol, adding fractions with	M795, U613, M830

	algebraic numerators, multiplying and dividing simple algebraic fractions	
9.07 Index Laws	Working with the laws of indices, this includes negative and **fractional** indices, using index notation for integer powers of 10, including negative powers.	U105, U622, U103, U437, U685, U457, U824
9.08 Standard Form	Converting between ordinary numbers and standard form. Calculating with standard form including multiplication, division, addition and subtraction.	U330, U534, U264, U290, U161
9.09 Expanding and Factorising	Expanding double brackets, factorising quadratics (where the coefficient of x^2 is 1), difference of two squares.	U179, U365, U768, U178, U963
9.10 Forming Expressions and Substitution	Substitution into algebraic formulae, basic functions - inputs and outputs, use algebra to show expressions are equivalence, know the difference between an equation and an identity.	M175, M428, U201, U585, U144
9.11 Proportion	Use proportion to answer problems involving exchange rates and best buys. Introduction to inverse proportion, interpret conversion graphs.	U721, U610, U357, U640, U407, U364, U138, U238, U369
9.12 Probability 1	Describe probability using the probability scale, calculate expected outcomes, mutually exclusive outcomes, experimental probabilities, probability from two way tables, sample spaces, samples, set notation and Venn diagrams. Product rule for counting.	U408, U510, U683, U166, U104, U476, U748, U296, U280, U580
9.13 Solving Equations 2	Solve linear equations that contain brackets, fractional coefficients, negative signs, negative solutions. Solving linear equations in one unknown with unknowns on both sides, solving equations that require fraction manipulation.	U755, U325, U585, U144, U870, U599, U505
9.14 Inequalities	Solve linear inequalities in one variable, represent and interpret solutions sets on a number line, solve two inequalities in one variable and compare to see which value(s) satisfy both.	U759, U509, U738, U145
9.15 Sequences	Recognise and use the sequence of triangular, square and cube numbers. Generate terms of a term-to-term sequence. Find the nth term of a linear sequence, use the nth term of a linear sequence to determine whether a given number is in that sequence.	U213, U530, M381, M241, U498, U978, U680, U958
9.16 Pythagoras	Use Pythagoras' Theorem to find missing sides in a right-angled triangle and to find the distance between two points. Justify whether a triangle with three given sides in right-angled or not.	U851, U385, U541
9.17 Interior and Exterior Angles	To calculate interior and exterior angles of (regular) polygons, find the total angle sum of a given polygon.	U447, U390, U730, U628, U732, U329, M985, U427
9.20 Plans and Elevations	Construct plans and elevations of 3D shapes, draw sketches of 3D solids from plans and elevations.	U743
9.21 Arcs and Sectors	Define all parts of a circle and know key definitions including, tangent, arc, sector and segment. Use the formula for area and	U767, U604, U950, U221, U373

	circumference of a circle to find the area of circle and sectors and calculate the circumference and arc lengths of circles.	
9.22 Surface Area	Sketch the nets of cuboids and prisms. Find the surface areas of cuboids, pyramids, spheres, cones and composite solids.	U929, U259, U464, U761, U781, U523, U893, U334, U561
H.18 Trigonometry	Understanding sin, cos and tan. Finding unknown sides in right-angled triangles. Finding unknown angles in right-angled triangles. Using the exact values of trigonometric ratios	U605, U283, U545, U627
H.17 Surds	Multiplying and dividing surds. Adding and subtracting surds. Simplify surd expressions involving squares (e.g. √12 = √(4 × 3) = √4 × √3 = 2√3). Expand and simplify single and double brackets involving surd manipulation	U633, U872, U338, U499