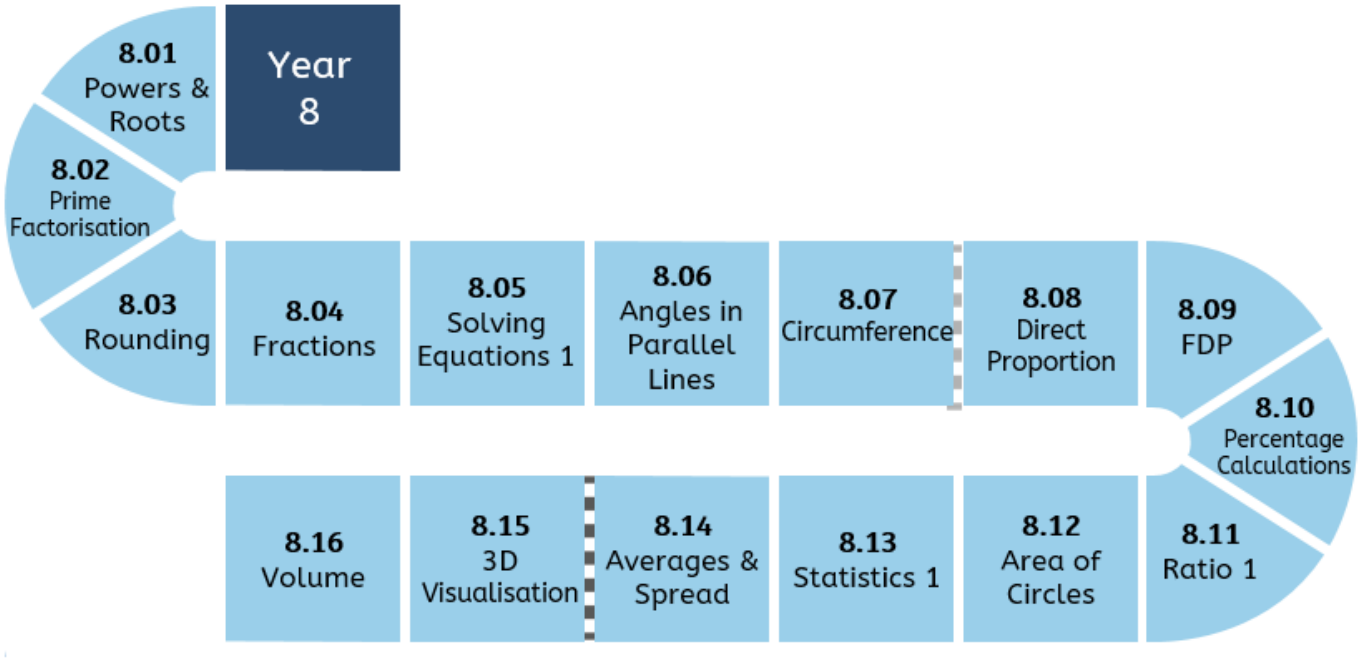
Holland Park School | *Year 8 Maths 2024/2025*



Overview	Year 8 Topics 2024/2025
Assessment	Fortnightly Topic Assessment
Homework	Sparx Maths (set every Wednesday, due for following Wednesday)
Resources	Sparx Maths, Corbett Maths, Maths Genie
Key Terminology	Square number, cube number, square root, indices, prime, prime factor decomposition, significant figures, estimate, improper, inverse, variable, coefficient, term, expression, parallel, perpendicular, alternate, corresponding, co-interior, vertically opposite, diameter, radius, chord, tangent, arc, sector, segment, circumference, revolution, proportion, percentage, ratio, unitary, trapezium, isosceles, frequency, average, mean, median, mode, range, face, edge, vertex, prism, cylinder, cone, sphere, volume, capacity

Topics	Key content	Sparx Clips
8.01 Powers and Roots	Use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representations of roots and their decimal approximations	M135, M608
8.02 Prime Factorisation	Use the concepts and vocabulary of prime numbers, factors (or divisors), common factors, prime factorisation, including using product notation and the unique factorisation property (HCF and LCM with large numbers taught in 9.04)	M322, M823, M108, M365, M227, M698

8.03 Rounding	Round numbers and measures to an appropriate degree of accuracy [for example, to a number of decimal places or significant figures]	M111, M431, M994, M131, M878
8.04 Fractions	Multiply and divide fractions and mixed numbers	M939, M410, M671, M601, M835, M931, M157, M197, M110, M265
8.05 Solving Equations	Use algebraic methods to solve linear equations in one variable (including all forms that require rearrangement). Model situations or procedures by translating them into algebraic expressions or formulae and by using graphs	M707, M509, M387, M554, M813, M795, M531, M957
8.06 Angles in Parallel Lines	Understand and use the relationship between parallel lines and alternate and corresponding angles	M818, M163, M606, M351, M679, M393
8.07 Circumference	Calculate and solve problems involving perimeters of 2-D shapes (including circles) and composite shapes	M595, M169
8.08 Direct Proportion	Use direct proportion for best buy and recipe problems.	M478, M681
8.09 Fractions, Decimals and Percentages	Converting between fractions, decimals and percentages.	M267, M958, M264, M553
8.10 Percentage Calculations	Solve problems involving percentage change, including: percentage increase, decrease, original value problems and simple interest in financial mathematics. Using multipliers.	M235
8.11 Ratio 1	Divide a given quantity into two parts in a given part:part or part:whole ratio; express the division of a quantity into two parts as a ratio	M885, M543, M267, U921, M801, M525
8.12 Area of Circles	Derive and apply formulae to calculate and solve problems involving area of circles (including part circles)	M705, M231, M430, M303, M269, M996
8.13 Statistics 1	Construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, vertical line (or bar) charts and stem and leaf for ungrouped and grouped numerical data	M945, M460, M738, M140, M183, M574, M165, M648, M210
8.14 Averages and Spread	Describe, interpret and compare observed distributions of a single variable through appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers).	M940, M934, M328, M841, M440
8.15 3D Visualisation	Use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3-D	M767, M518

8.16 Volume	Derive and apply formulae to calculate and solve problems involving volume of cuboids (including cubes) and other prisms (including cylinders)	M765, M722, M697, M465