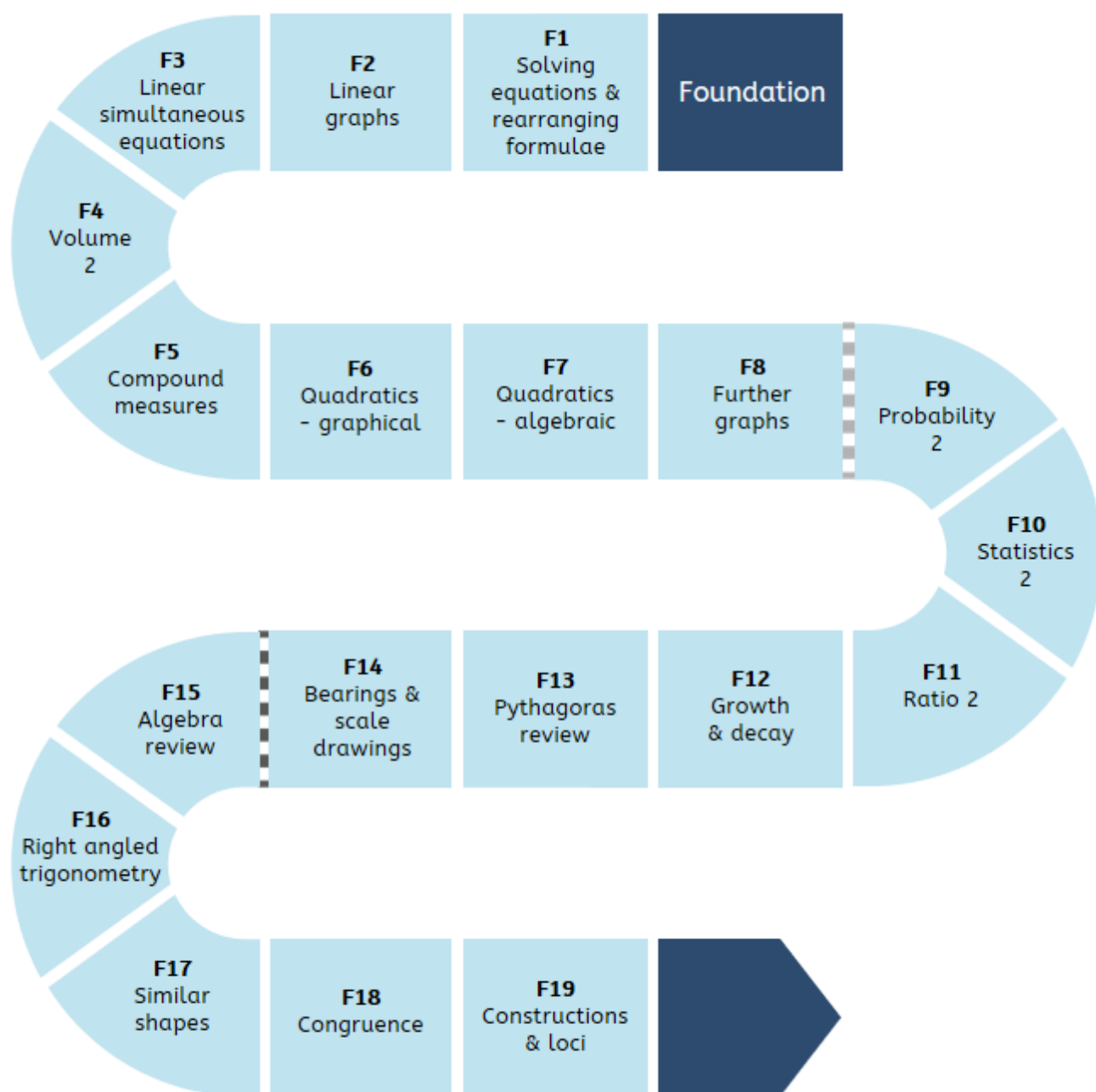


## Holland Park School | *Maths Year 10 and 11 Foundation 2024/2025*



<b>Overview</b>	GCSE Mathematics Foundation Topics 2024/2025
<b>Assessment</b>	Edexcel Exam Board 3 Papers – Paper 1 Non-Calculator Paper 2 Calculator Paper 3 Calculator
<b>Homework</b>	Sparx Maths (set every Wednesday, due for following Wednesday)
<b>Resources</b>	Sparx Maths, Corbett Maths, Maths Genie
<b>Key Terminology</b>	Estimate, standard form, ratio, reciprocal, percentage, square and cube numbers, square and cube roots, sequences, error interval, truncation,

	significant figure, indices, prime factor decomposition, expand, factorise, gradient, intercept, expression, equation, term, identity, formula, coefficient, exponential, quadratic, inequality, trigonometry, parallel, corresponding, alternate, co-interior, volume, surface area, isosceles, equilateral, scalene, parallelogram, rhombus, trapezium, kite, interior, exterior, transformation, translation, reflection, rotation, enlargement, congruent, radius, diameter, circumference, chord, sector, segment, arc, prism, bearing, average, mean, median, mode, range, frequency, outcome, probability,
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Topics	Key content	Sparx Clips
<b>F1 Solving equations and rearranging formulae</b>	Solve linear equations up to and including those with the unknown on both sides of the equation. Changing the subjects of formulae.	U755, U325, U870, U505, U556, U221, U373
<b>F2 Linear Graphs</b>	Recognise, plot and interpret straight-line graphs. Find approximate solutions from graphs including real life graphs. Identify and interpret gradients and y intercepts including from the form $y=mx+c$ .	U789, U741, U933, U889, U638, U669, U315, U377, U477, U848, U862
<b>F3 Linear Simultaneous Equations</b>	Solve two simultaneous equations algebraically and graphically. Derive two simultaneous equations from a situation in context.	U760, U757, U836, U137
<b>F4 Volume 2</b>	Find and problem solve with volume of cubes, cuboids, prisms, cylinders, spheres, pyramids, cone and composite solids.	U786, U174, U915, U484, U116, U617, U426, U350, U543
<b>F5 Compound Measures</b>	Interpret distance-time graphs. Change between standard units of measure and compound units of measure.	U914, U462, U896, U902, U388, U248, U468, U151, U256, U403, U914, U462, U966, U910, U527
<b>F6 Quadratics - graphical</b>	Recognise, sketch and interpret graphs of quadratic functions. Find approximate solutions from graphs.	U989, U667, U601, U178, U963
<b>F7 Quadratics - algebraic</b>	Factorise quadratic expressions and solve quadratic equations by factorising where the coefficient of $x^2$ is 1.	U228
<b>F8 Further graphs</b>	Recognise and be able to sketch cubic, reciprocal, inverse, and direct proportion graphs.	U980, U593, U238
<b>F9 Probability 2</b>	Work with experimental and theoretical probability, knowing that probability sums to 1. Use probability tree diagrams for independent and dependent events. Find probabilities from Venn diagrams.	U803, U408, U510, U280, U166, U683, U580, U476, U748, U104, U558, U729, U296, U369
<b>F10 Statistics 2</b>	Understand and draw types of charts, including bar charts, pictograms, stem and leaf diagrams and pie charts. Calculate and problem solve with averages and range. Plot, read and use scatter graphs.	U981, U363, U557, U508, U172, U653, U506, U200, U909, U291, U260, U456,

		U526, U569, U854, U877, U717, U322, U162, U590, U193, U199, U277, U128
<b>F11 Ratio 2</b>	Convert between ratio, fractions, and percentages. Write, simplify, and combine ratios. Share amounts given a ratio. Problem solve with ratio.	U687, U577, U753, U176
<b>F12 Growth &amp; Decay</b>	Set up, solve and interpret the answer of growth and decay problems including compound interest. Compare simple and compound interest.	U332, U988
<b>F13 Pythagoras Review</b>	Calculate a missing side length from a right-angled triangle. Use three side lengths of a triangle to determine if it is right angled.	U851, U385
<b>F14 Bearings &amp; Scale Drawings</b>	Measure and draw bearings. Draw and interpret scale diagrams. Calculate bearings using angles rules.	U257, U525, U107
<b>F15 Algebra Review</b>	Manipulate algebra by collecting like terms, multiplying out single and double brackets, factorising into single and double brackets, find the difference of two squares. Simplify expressions using index laws. Solve linear equations up to and including those with the unknown on both sides of the equation. Find approximate solutions using linear and quadratic graphs. Changing the subjects of formulae, including finding $r$ or $d$ when given a sector area or arc length. Substitute values into formulae. Construct and solve linear simultaneous equations using elimination and substitution.	
<b>F16 Right angled Trigonometry</b>	Use trigonometry to find missing angles and lengths including within multi-step problems and in context. Understand how to find angles of elevation and depression. Know the exact trig values.	U605, U283, U545, U627
<b>F17 Similar shapes</b>	Use similarity to find scale factors and length. Understand the effect enlargement has on angle size and perimeter of similar shapes.	U551, U578
<b>F18 Congruence</b>	Identify congruent shapes and know the definition and link to transformations. Know the congruence criteria for triangles (SSS, SAS, ASA, RHS). Solve angle problems involving congruence.	U790, U866
<b>F19 Constructions &amp; Loci</b>	Use constructions to draw angles, lines and triangles. Understand language of bisection. Use constructions to find the loci of points satisfying specific conditions.	U678, U447, U787, U245, U979, U820