Edexcel Foundation Level GCSE

	Autumn Term	Spring Term	Summer Term
Year 10	• Use the order of arithmetic operations • Round numbers using decimal places and significant figures • Identify factors and multiples • Use squares, cubes and roots • Use the laws of indices • Find the prime factorisation of numbers • Simplify algebraic expressions • Substitute into expressions and formulae • Expand brackets and factorise using common factors • Read data from tables • Draw and interpret (composite) bar charts, line graphs, time series graphs, stem and leaf diagrams, pie charts and scatter graphs • Compare and calculate with fractions • Convert between fractions, decimals and percentages • Calculate using percentages • Form and solve linear equations and inequalities • Find the general term of a linear sequence	• Recognise properties of shapes including congruency • Use the angle properties of parallel lines, triangles and other polygons • Calculate the mean, median, mode and range of a set of numbers • Use frequency tables including grouped • Find the areas of rectangles, triangles, parallelograms, trapezia and compound shapes • Find the surface area and volumes of cuboids and prisms • Plot straight line graphs • Use the general equation of a straight line • Use real-life graphs • Draw and describe translations, reflections, rotations and enlargements • Solve problems using ratios and proportion • Recognise direct and inverse proportion	• Solve problems using Pythagoras' Theorem and trigonometry • Calculate probabilities from equally likely events • Use two-way tables and tree diagrams to solve probability problems • Estimate probabilities from experimental data • Use Venn diagrams and the symbols and language associated with them • Calculate percentage profit and loss • Solve growth and decay problems • Solve problems involving compound measures • Find and use formulas for direct and inverse proportion
Year 11	• Name and explore the properties of 3D shapes • Use plans and elevations of 3D shapes • Give reasons for triangles being congruent • Use scale drawings and maps • Complete standard constructions using rulers and compasses • Draw loci • Use bearings • Multiply double brackets • Plot and use quadratic graphs • Factorise quadratic expressions	• Use standard form • Draw and describe enlargements • Use similarity to solve problems • Use congruence to work out unknown sides • Add, subtract and find multiples of vectors • Draw and interpret graphs of cubic and reciprocal functions • Solve simultaneous equations graphically and algebraically • Change the subject of a formula	• Revision and practice using past papers • Examinations

	• Solve quadratic equations graphically and algebraically • Use the formulae for the circumference and areas of circles • Calculate the volume and surface areas of cylinders, pyramids, cones and spheres	• Prove results using algebra	

Edexcel Higher Level GCSE

	Autumn Term	Spring Term	Summer Term
Year 10	• Enumerate combinations of events • Estimate answers using place value • Use factors, multiples and primes • Use the laws of indices with numbers and algebra • Use standard form • Use and simplify surds • Expand (double) brackets and factorise expressions using common factors • Solve linear equations • Substitute into formulas • Change the subject of a formula • Find the general terms of linear and quadratic sequences • Factorise quadratics • Construct and use back-to-back stem and leaf diagrams, frequency polygons, pie charts, time series graphs and scatter graphs • Use grouped frequency tables to find averages and measures of spread • Construct and use two-way tables • Calculate with fractions • Solve problems involving ratios and proportion • Solve real-life problems with percentages • Convert between fractions, decimals and percentages • Use angle properties of triangles, quadrilaterals and other polygons • Solve problems using Pythagoras' Theorem and trigonometry	• Plot straight line and other graphs • Use the general equation for a straight line • Understand rates of change in graphs • Use real-life graphs to solve problems • Solve equations using graphs • Recognise the shapes of graphs and their equations (cubic, reciprocal, circle etc.) • Calculate the areas and volumes of shapes • Use plans and elevations of 3D shapes • Draw and describe translations, reflections, rotations and enlargements • Draw and use scale drawings • Solve problems involving bearings • Complete standard constructions using rulers and compasses • Draw loci • Rearrange and solve quadratic equations • Use the quadratic formula • Complete the square for quadratic expressions • Solve simultaneous equations • Solve linear inequalities • List and enumerate all the possible outcomes of two or more events • Calculate the probabilities of events • Use two-way tables and tree diagrams to solve probability problems • Estimate probabilities from experimental data • Use Venn diagrams and the symbols and language associated with them	• Calculate repeated percentage change • Solve growth and decay problems • Use compound measures • Solve problems involving direct and inverse proportion • Recognise the conditions for the congruency of triangles • Use similarity to solve problems including in 3D shapes • Recognise, plot, sketch and use trigonometric graphs • Solve problems involving the area of a triangle, sine and cosine rules • Transform trigonometric graphs
Year 11	• Understand how to take random and stratified samples	• Change the subject of a formula • Simplify and use algebraic fractions and surds, including solving equations	• Revision and practice using past papers • Examinations

	• Draw and use cumulative frequency graphs, box plots and histograms • Compare sets of data • Solve simultaneous equations graphically • Represent inequalities on graphs • Draw and use quadratic and cubic graphs • Solve problems and complete proofs using the circle theorems • Find the equation of a tangent to a circle •	• Use function notation for compound and inverse functions • Prove results using algebra • Solve problems using vectors • Write and use equations to solve direct and inverse proportion problems • Recognise exponential functions • Calculate the gradient of a graph at a point and estimate the areas under non-linear graphs • Transform the graphs of functions	