



Curriculum Map- Maths

Below is a curriculum map, showing what is taught at each stage of the year.

	Term 1.1	Term 1.2	Term 2.1	Term 2.2	Term 3.1	Term 3.2	
Year 7	<ul style="list-style-type: none"> • Understand how to tell the time and its use in time tables • Understand place value and their use in written and mental methods • Apply effective mental and written methods of multiplication and division • Perform calculations with negative numbers and understand the uses of negative numbers in context • Recognise and use relationships between operations, such as factors, multiples, primes, inverses and BIDMAS • Identify and find prime numbers, prime decomposition, LCM and HCF • Understand equivalent fractions and perform calculations involving fractions • Calculate the perimeter and area of a range of shapes 		<ul style="list-style-type: none"> • Find equivalent fractions, decimals and percentages, and use them to compare proportional values • Calculate fractions and percentages of amounts • Ratio and proportion • Use and interpret the collection of like terms, multiplication rules and expanding brackets to simplify algebraic expressions • Recognise terms, expressions and sequences, and substitute values including decimals, fractions and negatives • Recognise equations and identities, using inverse operations to solve where possible • Accurately draw, measure and name the 3 types of angles • Use geometric reasoning to find missing angles in 2D 		<ul style="list-style-type: none"> • Understand how to collect and organise data and construct a range of graphs • Interpret statistical data through calculating the mean, median, mode and range • Find and contextualise statistical measures • Visualise and identify 2D/3D shapes and their nets • Calculate the volume of prisms 		

		<p>shapes</p>	
<p>Year 8</p>	<ul style="list-style-type: none"> • Apply effective mental and written method of operations with integers and decimals • Understand and execute the order of operations • Apply rounding to estimate the answer to a calculation • Perform calculations with negative numbers and understand the uses of negative numbers in context • Identify and find powers and roots • Identify and find prime numbers, prime decomposition, LCM and HCF • Understand equivalent fractions and perform calculations involving fractions • Calculate the area of a range of shapes • Understand the use of pi and apply it to calculate the area and circumference of circles • Recognise and use relationships between units of measurement 	<ul style="list-style-type: none"> • Apply algebraic skills to plot linear and quadratic graphs • Simplify algebraic expressions by collecting like terms, expanding and factorising • Use algebraic manipulation to solve multi-step equations including unknowns on both sides and change the subject of a formulae • Understand and solve linear inequalities • Use and determine the nth term of a linear sequence • Find unknown angles in parallel lines • Identify and calculate angles in polygons • Understand and use the relationship between ratio and proportion and proportional reasoning • Find percentages of amounts and percentage increase/decrease using multipliers 	<ul style="list-style-type: none"> • Represent and use 3D shapes in 2D form to calculate volume and surface area • Interpret statistical data through calculating the mean, median, mode and range • Find and contextualise statistical measures • Use probability rules to describe chance



and compound measures

- Use protractor and compasses to accurately construct triangles and quadrilaterals
- Use a straight edge and compass to form constructions and loci
- Understand how to identify congruent and similar shapes



Year 9

- Apply rounding to estimate the answer to a calculation
- Identify and find prime numbers, prime decomposition, LCM and HCF
- Using Index Laws and Standard Form
- Understand equivalent fractions and perform calculations involving fractions
- Convert between fractions, decimals and percentages
- Calculating percentage increase, decrease, reverse, simple interest and compound interest
- Ratio and proportion
- Representing data

- Probability
- Simplify algebraic expressions by collecting like terms, expanding and factorising
- Use algebraic manipulation to solve multi-step equations including unknowns on both sides and change the subject of a formulae
- Understand and solve linear inequalities
- Substitution, further algebraic manipulation & solving simultaneous equations
- Use and determine the n th term of a linear sequence
- Apply algebraic skills to plot linear graphs
- Real life graphs
- Apply algebraic skills to plot quadratic, cubic and reciprocal graphs and circles

- Calculate area and perimeter of shapes including triangles, quadrilaterals and circles
- Represent and use 3D shapes in 2D form to calculate surface area and volume of prisms
- Identify and calculate angles in polygons & unknown angles in parallel lines
- Using Pythagoras Theorem and trigonometric ratios
- Transformations



<p>Year 10 (H)</p>	<ul style="list-style-type: none"> • Direct and inverse proportion • Fractions, decimals and percentages and geometric progression • Surds • Perpendicular lines and equation of circles • Solve quadratic equations • Quadratic inequalities (and simultaneous) • Algebraic manipulation and proof 	<ul style="list-style-type: none"> • Iterative process • Functions • Gradients and rate of change • Constructions, Loci and Bearings • Circle theorems • Similarity and congruency 	<ul style="list-style-type: none"> • Trigonometric ratios & 2D/3D Pythagoras • Transformations including graphs • Probability and Venn diagrams • Histograms & Cumulative frequency and box plots • Vectors • Transformations including enlargement
<p>Year 10 (F)</p>	<ul style="list-style-type: none"> • Simplify algebraic expressions by collecting like terms, expanding and factorising • Use algebraic manipulation to solve multi-step equations including unknowns on both sides and change the subject of a formulae • Use and determine the nth term of a linear sequence • Apply algebraic skills to plot and interpret linear graphs • Apply algebraic skills to plot and interpret quadratic, cubic and reciprocal graphs • Using Pythagoras Theorem and trigonometric ratios 	<ul style="list-style-type: none"> • Ratio and Proportion, direct and inverse proportion • Percentages and Growth and decay • Using Index Laws and Standard Form • Error intervals & Compound Measures • Perimeter and area of rectangles, triangles and trapezia • Calculate area and perimeter of parts of a circle • Represent and use 3D shapes in 2D form to calculate surface area and volume 	<ul style="list-style-type: none"> • Angles in parallel lines and polygons • Similarity and congruency • Interpret charts and graphs including scatter graphs • Transformations including enlargement • Constructions, loci and bearings • Frequency trees and probability • Vectors