

## Springwood High School Maths Curriculum Plan

### **Our Vision:**

For all students to have a positive experience of maths, to enjoy discovering and understanding new concepts and to ensure that the understanding is deep and concrete, allowing pupils to apply these in a variety of different situations. To enable pupil to achieve their full potential and get the maths qualifications they need in order to further their studies or to succeed in their chosen careers. For all students to have the confidence to problem solve and try different techniques in order to do so.

Exam boards: GCSE - AQA. A-level - Edexcel.

### **Brief overview of topics, themes, skills or key questions for each term:**

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	Number - Intro to sequences, place value, addition and subtraction	Number - Multiplication and Division, Order of Operations, Factors & Multiples	Introduction to Geometry Number - Fractions	Algebra - Algebraic expressions Number - Percentages	Number - Primes and Indices, Rounding	Algebra - Algebraic expressions
8	Algebra - Linear Equations	Geometry - Angles, Area and Perimeter	Number - Percentages, Ratio and Proportion	Number - Fractions Geometry - 3D Geometry	Statistics - Charts and Averages, Probability	Algebra - Graphs, Sequences Number - proportion

## Springwood High School Maths Curriculum Plan

9	<p>Calculations with integers. Place value. Rounding. Estimation. Calculations with decimals. Indices and roots.</p> <p><b><u>Higher only</u></b> Factors, multiples and primes. Fractions Percentages.</p>	<p><b><u>Foundation</u></b> Factors, multiples and primes. Fractions Percentages.</p> <p><b><u>Higher</u></b> Factors, multiples and primes. Fractions Percentages. Ratio . Proportion.</p>	<p><b><u>Foundation</u></b> Algebraic expressions. Linear equations</p> <p><b><u>Higher</u></b> Algebraic expressions. Linear equations Inequalities</p>	<p><b><u>Foundation</u></b> Inequalities Ratio Proportion</p> <p><b><u>Higher</u></b> Standard form Straight line graphs. Real life graphs</p>	<p><b><u>Foundation</u></b> Standard form Straight line graphs. Real life graphs Sequences</p> <p><b><u>Higher</u></b> Straight line graphs and coordinate geometry. Surds</p>	<p><b><u>Foundation</u></b> Transformations Plans and elevations</p> <p><b><u>Higher</u></b> Quadratics. Proportion. Sequences. Transformations</p>
10	<p><b><u>Foundation</u></b> Sampling. Averages. Charts and Graphs</p> <p><b><u>Higher</u></b> Sampling. Averages. Charts and Graphs Pie charts</p>	<p><b><u>Foundation</u></b> Pie charts. Scatter graphs. Properties of shapes, parallel lines and angle facts. Interior and exterior angles of polygons</p>	<p><b><u>Foundation</u></b> Quadratic equations: expanding and factorising and graphs Pythagoras' Theorem. Perimeter and area</p>	<p><b><u>Foundation</u></b> Surface area and volume. Probability Compound measures.</p> <p><b><u>Higher</u></b> Constructions, loci and bearings. Probability</p>	<p><b><u>Foundation</u></b> Constructions and loci Perimeter, area and volume.</p> <p><b><u>Higher</u></b> Compound measures. Similarity and congruency. Cumulative frequency and boxplots. Further trigonometry</p>	<p><b><u>Foundation</u></b> Similarity and congruency</p> <p><b><u>Higher</u></b> Further trigonometry Vectors Quadratic inequalities Quadratic sequences</p>

## Springwood High School Maths Curriculum Plan

		<p><b><u>Higher</u></b> Scatter graphs. Properties of shapes, parallel lines and angle facts. Interior and exterior angles of polygons Pythagoras' Theorem and trigonometry in right angled triangles. Perimeter and area.</p>	<p><b><u>Higher</u></b> Perimeter and area. Surface area and volume. Accuracy and bounds</p>			
11	<p><b><u>Foundation</u></b> Similarity and congruency. Vectors Simultaneous equations. Proof</p> <p><b><u>Higher</u></b> Further trigonometry. Circle Theorems.</p>	<p><b><u>Foundation</u></b> Revision</p> <p><b><u>Higher</u></b> Transformations of graphs. Algebraic fractions. Changing the subject where the subject occurs more than once. Proof Functions. Vectors</p>	Revision	Revision	Revision	

## Springwood High School Maths Curriculum Plan

		Gradient and area under a curve.				
12	Algebra and functions, Coordinate geometry,	Trigonometry, Vectors (2D), Proof, Further Algebra, Sampling	Differentiation, Data presentation,	Integration, Exponentials, Hypothesis Testing,	Mechanics	More Mechanics
13	Algebraic and partial fractions, Functions and modelling, Trigonometry, Differentiation	Series and sequences, The binomial theorem , Integration,	Integration, Numerical methods, Parametric equations, Vectors (3D), Statistics	Statistics, Mechanics	Revision	

### **Enrichment Activities:**

Super Learning Days: Year 7 - Smoothie making. Year 8 - Bridge building.

Competitions: Senior Maths challenge (November), Intermediate maths challenge, Junior Maths challenge. Team Maths challenges. The Michaelmas Symposium (Year 12 in November). Trust maths competitions. Year 6 maths competition (July). Year 10 Maths feast and year 9 summer snacks with AMSP.

Trips: Disneyland Paris.



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Clubs & Support:

After school revision on Tuesdays, Wednesdays and Thursdays in B8. Stem club at lunchtimes. Hegarty maths, Corbett Maths, Pixl maths app