Year 10 Maths Curriculum Overview

St Mary Redcliffe and Temple School

Year 10	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Skills	**Higher Tier Sets 1 to 5:** Calculations, checking and rounding Indices, roots, reciprocals and hierarchy of operations Recurring decimals into fractions. Factors, multiples, primes, standard form and surds, rationalising surds. **Foundation Tier Sets 6 to 8** Integers and place value. Decimals. Indices, powers and roots. Factors, multiples and primes.	**Higher Tier Sets 1 to 3:** Algebra: the basics, setting up, rearranging and solving equations. Quadratics, expanding more than two brackets, Complete the square and Quadratic formula. **Higher Tier Sets 4&5** Algebra: the basics, setting up, rearranging and solving equations. Sequences. Iterations. **Foundation Tier Sets 6 to 8** Algebra: the basics. Expressions and substitution into formulae. Tables, charts and graphs Pie charts Scatter graphs	**Higher Tier Sets 1 to 3** Changing the subject of formulae (more complex). Algebraic fractions, solving equations arising from algebraic fractions. **Higher Tier Sets 4&5** Averages and range. Representing and interpreting data and scatter graphs. **Foundation Tier Sets 6 to 8** Fractions, decimals and percentages Calculating Percentages and problem solving	**Higher Tier Sets 1 to 3** Sequences, iterations. Averages and range. Representing and interpreting data and scatter graphs. Collecting data. Cumulative frequency, box plots and histograms. **Higher Tier Sets 4&5** Fractions and percentages. Ratio and proportion. Direct and inverse proportion. **Foundation Tier Sets 6 to 8** Equations and inequalities. Sequences.	**Higher Tier Sets 1 to 3** Fractions and percentages. Ratio and proportion . Direct and inverse proportion. **Higher Tier Sets 4&5** Pythagoras' Theorem and trigonometry. Further trigonometry. Polygons, angles and parallel lines. **Foundation Tier Sets 6 to 8** Properties of shapes, parallel lines and angle facts; Interior and exterior angles of polygons. Statistics, sampling and the averages.	**Higher Tier Sets 1 to 3** Pythagoras' Theorem and trigonometry. Further trigonometry. Polygons, angles and parallel lines. Circle theorems. **Higher Tier Sets 4&5** Perimeter, area and circles. 3D forms and volume, cylinders, cones and spheres. Constructions, loci and bearings. **Foundation Tier Sets 6 to 8** Perimeter, area and volume. Real-life graphs. Straight-line graphs.
Knowledge	Number and Calculating Algebra and problem solving	Algebra and problem solving Probability & Statistics	Algebra and problem solving Ratio and Proportion	Probability & Statistics. Geometry	Ratio and Proportion Geometry	Geometry
Assessment	Unit tests on the above for each term					
Careers	Data Analyst Computer software designer	Data Analyst Computer software designer Engineering, Architecture, building & construction	Engineering, Architecture, building & construction	Data Analyst Computer software designer	Engineering, Architecture, building & construction Sales & finance	Engineering, Architecture, building & construction

Year 11 Maths Curriculum Overview

Year 11	Term 1	Term 2	Term 3	Term 4	Term 5
Skills	**Higher Tier Sets 1 to 3** Graphs: the basics and real-life graphs. Linear graphs and coordinate geometry. Plot Quadratic, cubic and other graphs. Sketching graphs, graphs of circles, cubes and quadratics. Functions **Higher Tier Sets 4 to 5** Graphs: the basics and real-life graphs. Linear graphs and coordinate geometry. Plot Quadratic, cubic and other graphs. sketching graphs, graphs of circles, cubes and quadratics. Probability & Capture/recapture. Multiplicative reasoning. **Foundation Tier Sets 6 to 8** Transformations. Ratio and proportion Pythagoras and trigonometry.	**Higher Tier Sets 1 to 3** Perimeter, area and circles. 3D forms and volume, cylinders, cones and spheres. Accuracy and bounds. Transformations. Constructions, loci and bearings. **Higher Tier Sets 4 to 5** Similarity and congruence in 2D and 3D. Accuracy and bounds. Transformations. Solving linear and quadratic simultaneous equations. Linear Inequalities. **Foundation Tier Sets 6 to 8** Probability. Multiplicative reasoning. Plans and elevations. Constructions, loci and bearings.	**Higher Tier Sets 1 to 3** Solving linear and quadratic simultaneous equations. Inequalities. Probability & Capture/recapture. Multiplicative reasoning. **Higher Tier Set 4** Graphs of trigonometric functions – solving. Further Trigonometry. Collecting data. Cumulative frequency, box plots and histograms. Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics. **Foundation Tier Set 5** Plans and Elevations Recap: Simultaneous Equations Quadratic equations: expanding and factorising. Quadratic equations: graphs. **Foundation Tier Sets 6 to 8** Quadratic equations: expanding and factorising. Quadratic equations: graphs.	**Higher Tier Sets 1 to 3** Similarity and congruence in 2D and 3D. Graphs of trigonometric functions – solving. Circle geometry proof. **Higher Tier Set 4** Circle theorems. Circle geometry. Changing the subject of formulae (more complex), algebraic fractions, solving equations arising from algebraic fractions, rationalising surds, proof. Quadratic Inequalities. Functions. **Foundation Tier Set 5** Fractions and reciprocals. Vectors Rearranging Equations, graphs of Cubic and Reciprocal Functions **Foundation Tier Sets 6 to 8** Circles, cylinders, cones and spheres. Fractions and reciprocals. Indices and standard form.	**Higher Tier Sets 1 to 3** Vectors and geometric proof. Reciprocal and exponential graphs; Gradient and area under graphs, graph transformations. **Higher Tier Set 4** Vectors and geometric proof. Reciprocal and exponential graphs; Gradient and area under graphs, graph transformations. **Foundation Tier Set 5** Recap: Indices, powers, roots, surds Averages, frequency tables, comparing sets of data Straight Line Graphs **Foundation Tier Sets 6 to 8** Similarity and congruence in 2D. Vectors.
Knowledge	Proficient use of algebra	Shape and rounding	Simultaneous equations	Angles and Shape	Vectors, problem solving with graphs
Assessment	Unit tests on the above for each term				
Careers	Data Analyst Computer software designer	Data Analyst Designer Engineering, Architecture, building & construction	Data Analyst Computer software designer	Data Analyst Computer software designer	Engineering, Architecture, building & construction Sales & finance