Bishop Stopford's School

Curriculum Map Year 10 HIGHER

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit of work	1 Number 2 Algebra	3 Interpreting and Representing Data 4 Fractions, percentages, ratios	5 Angles and Trigonometry 6 Graphs	7 Perimeter and Volume 8 Transformations and Constructions	9 Equations and Inequalities 10 Probability	11 Multiplicative Reasoning 12 Similarity and Congruence
Core Skills	Have a firm grasp of place value and be able to order integers and decimals and use the four operations. Know integer complements to 10 and to 100, multiplication facts to 10 × 10, strategies for multiplying and dividing by 10, 100 and 1000. Have encountered squares, square roots, cubes and cube roots and have knowledge of classifying integers Use negative numbers with the four operations and recall and use hierarchy of operations and understand inverse operations. Use a calculator for decimals and negative numbers. Use index laws numerically. Use and interpret algebraic notation. Set up and solve simple equations. Recall the definitions of geometric and arithmetic sequences.	Read scales on graphs, draw circles, measure angles and plot coordinates in the first quadrant. Have experience of tally charts. Use inequality notation. Find midpoint of two numbers. Find the range, mean, median and mode of a data set Know the four operations of number. Find common factors. Have a basic understanding of fractions as being 'parts of a whole'. Define percentage as 'number of parts per hundred'. Be aware that percentages are used in everyday life. Use ratio notation, and to write a ratio in its simplest form	Rearrange simple formulae and equations, as preparation for rearranging trig formulae. Recall basic angle facts. Understand that fractions are more accurate in calculations than rounded percentage or decimal equivalents. Recall the properties of special types of triangles and quadrilaterals Identify coordinates of given points in the first quadrant or all four quadrants. Write the equation for a straight line graph. Use and draw conversion graphs. Use function machines and inverse operations. Use compound units, such a speed	Know the names and properties of 3D shapes. Know the concept of perimeter and area by measuring lengths of sides. Substitute numbers into an equation and give answers to an appropriate degree of accuracy. Know the various metric units. Identify planes of symmetry of 3D solids. Sketch a net of a 3D shape. Work out the volume of a 3D solid made of cuboids. Recognise 2D shapes. Plot coordinates in four quadrants and linear equations parallel to the coordinate axes. Convert metric measures. Recognise congruent and similar shapes. Transform shapes using translation, reflection, rotation and enlargement	Understand the ≥ and ≤ symbols. Substitute into, solve and rearrange linear equations. Factorise simple quadratic expressions. Recognise the equation of a circle Understand that a probability is a number between 0 and 1, and distinguish between events which are impossible, unlikely, even chance, likely, and certain to occur. Mark events and/or probabilities on a probability scale of 0 to 1. Know how to add and multiply fractions and decimals. Express one number as a fraction of another. List all outcomes for a single event systematically. Make predictions from experimental data. Complete a two-way table	Find a percentage of an amount and relate percentages to decimals. Rearrange equations and use these to solve problems. Know speed = distance/time, density = mass/volume. Convert between metric units. Solve simple direct and indirect proportion problems, including currency conversion Recognise and enlarge shapes and calculate scale factors. Know how to calculate area and volume in various metric measures. Measure lines and angles, and use compasses, ruler and protractor to construct standard constructions. Recognise congruent shapes. Know basic angle facts
Core Knowledge	1.1 Number problems and reasoning 1.2 Place value and estimating 1.3 HCF and LCM 1.4 Calculating with powers (indices) 1.5 Zero, negative and fractional indices 1.6 Powers of 10 and standard form 1.7 Surds 2.1 Algebraic indices 2.2 Expanding and factorising 2.3 Equations 2.4 Formulae 2.5 Linear sequences 2.6 Non-linear sequences 2.7 More expanding and factorising	3.1 Statistical diagrams 3.2 Time series 3.3 Scatter graphs 3.4 Line of best fit 3.5 Averages and range 4.1 Fractions 4.2 Ratios 4.3 Ratio and proportion 4.4 Percentages 4.5 Fractions, decimals and percentages	5.1 Angle properties of triangles and quadrilaterals 5.2 Interior angles of a polygon 5.3 Exterior angles of a polygon 5.4 Pythagoras' theorem 5.6 Trigonometry 6.1 Linear graphs 6.2 More linear graphs 6.3 Graphing rates of change 6.4 Real-life graphs 6.5 Line segments 6.6 Quadratic graphs 6.7 Cubic and reciprocal graphs 6.8 More graphs	7.1 Perimeter and area 7.2 Units and accuracy 7.3 Prisms 7.4 Circles 7.5 Sectors of circles 7.6 Cylinders and spheres 7.7 Pyramids and cones 8.1 3D solids 8.2 Reflection and rotation 8.3 Enlargement 8.4 Transformations and combinations of transformations 8.5 Bearings and scale drawings 8.6 Constructions 8.8 Loci	9.1 Solving quadratic equations 9.3 Completing the square 9.4 Solving simple simultaneous equations 9.5 More simultaneous equations 9.6 Solving linear and quadratic simultaneous equations 9.7 Solving linear inequalities 10.1 Combined events 10.2 Mutually exclusive events 10.3 Experimental probability 10.4 Independent events and tree diagrams 10.5 Conditional probability 10.6 Venn diagrams and set notation	11.1 Growth and decay 11.2 Compound measures 11.4 Ratio and proportion 12 Similarity and congruence 12.1 Congruence 12.2 Geometric proof and congruence 12.3 Similarity 12.5 Similarity in 3D solids
Assement & Feedback	2 mini Assessments on core knowledge and 1 end of half term Assessment Marking and Feedback will be done on green sheets	2 mini Assessments on core knowledge and 1 end of half term Assessment Marking and Feedback will be done on green sheets	2 mini Assessments on core knowledge and 1 end of half term Assessment Marking and Feedback will be done on green sheets	2 mini Assessments on core knowledge and 1 end of half term Assessment Marking and Feedback will be done on green sheets	2 mini Assessments on core knowledge and 1 end of half term Assessment Marking and Feedback will be done on green sheets	2 mini Assessments on core knowledge and 1 end of half term Assessment Marking and Feedback will be done on green sheets
Link to prior learning	Students will be assigned weekly homework on MathsWatch or otherwise to reinforce core knowledge	Students will be assigned weekly homework on MathsWatch or otherwise to reinforce core knowledge	Students will be assigned weekly homework on MathsWatch or otherwise to reinforce core knowledge	Students will be assigned weekly homework on MathsWatch or otherwise to reinforce core knowledge	Students will be assigned weekly homework on MathsWatch or otherwise to reinforce core knowledge	Students will be assigned weekly homework on MathsWatch or otherwise to reinforce core knowledge