Bishop Stopford's School

Curriculum Map Year 10 FOUNDATION

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit of work	1 Number 2 Algebra	3 Graphs, tables and charts 4 Fractions and percentages	5 Equations, Inequalities, Sequences 6 Angles	7 Averages and Range 8 Perimeter and Volume	9 Graphs 10 Transformations	11 Ratio and proportion 12 Right-angles triangles
Core Skills	Identify the value of digits in a whole number or decimal. Round to the nearest integer, and to a given power. Apply the four operations. Recall all multiplication facts to 10 × 10, and use them to derive quickly the corresponding division facts. Know strategies for multiplying and dividing whole numbers by 2, 4, 5 and 10. Recognise odd and even numbers. Understand and use positive and negative numbers. Use the four operations with positive and negative integers. Recall and use the hierarchy of operations. Evaluate numerical expressions involving powers and roots. Multiply and divide numbers with indices. Find the HCF of two numbers. Simplify simple algebraic expressions	Read scales on graphs and plot coordinates in the first quadrant. Draw circles. Measure and draw angles. Know that there are 360 degrees in a full turn and 180 degrees at a point on a straight line. Have experience of tally charts. Have used inequality notation. Use correct notation for time using 12 & 24-hour clocks. Use the four operations of number. Find common factors. Have a basic understanding of fractions as being 'parts of a whole' and be able to write one value as a fraction of another. Define percentage as 'number of parts per hundred'. Know number complements to 10 and multiplication tables. Convert between common fractions, decimals and percentages	Use inequality signs between numbers. Use negative numbers with the four operations, recall and use the hierarchy of operations and understand inverse operations. Deal with decimals and negatives on a calculator. Use index laws numerically. Draw a number line. Write the next terms in a sequence, and find the term to term rule. Use function machines. Multiply a term over brackets. Be able to use a ruler and protractor. Have an understanding of angles as a measure of turning. Name angles and distinguish between acute, obtuse, reflex and right angles. Recognise reflection symmetry, be able to identify and draw lines of symmetry, and complete diagrams with given number of lines of symmetry. Recognise rotation symmetry and be able to identify orders of rotational symmetry, and complete diagrams with given order of rotational symmetry. Know the properties of special triangles and quadrilaterals	Calculate the midpoint of two numbers. Draw the statistical diagrams in unit 3. Use inequality notation. Calculate the mode, median and the range Measure lines. Recall the names of 2D shapes. Identify and name common 3D solids: cubes, cuboids, prisms, cylinders, pyramids, cones and spheres. Use strategies for multiplying and dividing by powers of 10. Find areas by counting squares and volumes by counting cubes. Interpret scales on a range of measuring instruments. Convert metric units to metric units	Plot coordinates and read scales Substitute into Recall basic shapes. Be able to plot points in all four quadrants. Understand the concept of rotation. Reflect a shape in a mirror line. Translate a shape on a squared grid using instructions such as left/right and up/down. "Draw and recognise lines parallel to axes and $y = x$, $y = -x$." Understand the terms 'clockwise' and 'anticlockwise'	Know the four operations of number. Have a basic understanding of fractions as being 'parts of a whole'. Find the scale factor of an enlargement. Draw a line graph from a table of values Rearrange simple formulae and equations, as preparation for rearranging trigonometric formulae. Recall basic angle facts. Understand when to leave an answer in surd form. Plot coordinates in all four quadrants and draw axes. Round to a specified degree of accuracy.
Core Knowledge	1.1 Calculations 1.2 Decimal numbers 1.3 Place value 1.4 Factors and multiples 1.5 Squares, cubes and roots 1.6 Index notation 1.7 Prime factors 2.1 Algebraic expressions 2.2 Simplifying expressions 2.3 Substitution 2.4 Formulae 2.5 Expanding brackets 2.6 Factorising 2.7 Using expressions and formulae	3.1 Frequency tables 3.2 Two-way tables 3.3 Representing data 3.4 Time series 3.5 Stem and leaf diagrams 3.6 Pie charts 3.7 Scatter graphs 3.8 Line of best fit 4.1 Working with fractions 4.2 Operations with fractions 4.3 Multiplying fractions 4.4 Dividing fractions 4.5 Fractions and decimals 4.6 Fractions and percentages 4.7 Calculating percentages	5.1 Solving equations 5.3 Solving equations with brackets 5.4 Introducing inequalities 5.5 More inequalities 5.6 More formulae 5.7 Generating sequences 5.8 Using the nth term of a sequence 6.1 Properties of shapes 6.2 Angles in parallel lines 6.3 Angles in triangles 6.4 Exterior and interior angles 6.5 More exterior and interior angles 6.6 Geometrical patterns	7.1 Mean and range 7.2 Mode, median and range 7.3 Types of average 7.4 Estimating the mean 7.5 Sampling 8.1 Rectangles, parallelograms and triangles 8.2 Trapezia and changing units 8.3 Area of compound shapes 8.4 Surface area of 3D solids 8.5 Volume of prisms 8.6 More volume and surface area	9.1 Coordinates 9.2 Linear graphs 9.3 Gradient 9.4 $y = mx + c$ 9.5 Real-life graphs 9.6 Distance-time graphs 9.7 More real-life graphs 10.1 Translation 10.2 Reflection 10.3 Rotation 10.4 Enlargement 10.5 Describing enlargements 10.6 Combining transformations	11.1 Writing ratios 11.2 Using ratios 11.3 Ratios and measures 11.5 Comparing using ratios 11.6 Using proportion 11.7 Proportion and graphs 11.8 Proportion problems 12.1 Pythagoras' theorem 12.3 Trigonometry: the sine ratio 12.5 Trigonometry: the cosine ratio 12.6 Trigonometry: the tangent ratio 12.7 Finding lengths and angles using trigonometry
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