Mathematics – KS3 Curriculum Map

ST BEDE'S
CATHOLIC VOLUNTARY ACADEMY

Year 7

	Advent 1	Advent 2	Lent 1	Lent 2	Pentecost 1	Pentecost 2
Key content	Number A Algebra A	Geometry A Number B	Geometry B Probability and Statistics	Number C Algebra B	Number D Algebra C	Geometry C Number E
Key concepts and skills	Adding and subtracting negative numbers. Multiplying and Dividing negative numbers Order of Operations Squares Cubes and Roots Factors and Multiples Algebraic notation Collecting and Simplifying Terms Indices	Symmetry - reflection and rotational Names and properties of triangles and quadrilaterals Recognizing Quadrilaterals Names and properties of 3D shapes Congruent and similar shapes Ordering Decimals Adding and subtracting decimals Multiplying Decimals Dividing Decimals by whole numbers	Drawing angles Measuring Angles Labelling angles Angle facts Angles in triangles and special triangles Angles in quadrilaterals Stem and Leaf Diagrams Pie Charts Scatter Graphs Construct and interpret vertical line charts for ungrouped and grouped data.	Lowest Common Multiple Highest Common Factor Prime Factor Decomposition Algebraic notation Multiplying Single Brackets Recognizing Common Factors - Factorizing	Rounding to decimal places Rounding to significant figures Estimation Expression, Equation, Identity and Formula Substitution	Area of Rectangles Area of Triangles Areas of Trapeziums and Parallelograms Using a calculator

Year 8

	Advent 1	Advent 2	Lent 1	Lent 2	Pentecost 1	Pentecost 2
Key content	Number F Probability and Statistics	Geometry D Ratio, Proportion and Rates of Change	Algebra D Geometry E	Number G Algebra E	Geometry F Algebra F	Probability and Statistics Geometry G
Key concepts and skills	Finding Fractions of a number Equivalent and Simplifying Fractions Comparing/Ordering fractions Adding and Subtracting Fractions Multiplying Fractions Dividing Fractions Using Reciprocals Fractions on a calculator Finding Probabilities Complementary Probabilities Mutually Exclusive Events Expectation Relative Frequency	Recap area of triangles Recap areas of trapeziums and parallelograms Areas of Compound Shapes Circumference of a Circle Area of a Circle Ratio - recognizing and simplifying Linking ratio and fractions Sharing in a ratio - given the total or given a part Direct Proportion (Including unitary method)	Solving Two Step Equations with unknowns on one side Solving Equations with Brackets (Unknowns on one side) Forming and Solving Equations Angles on parallel lines Angles in Polygons	Convert between basic fractions to decimals Fractions, Decimals and Percentages Use a number line to represent bounded and multiple inequalities Interpret a number line to state the inequality Solving 1 and 2 step inequalities and representing solutions on a number line. Solve an algebraic inequality and represent it on a number line.	Co-ordinates Basic Transformations Multiplying Single Brackets Recognizing Common Factors – Factorizing Factorizing Expressions with powers >1	Listing Possible Outcomes Frequency Trees Venn diagrams Two Way Tables Nets Recap formulae for areas of 2D shapes. Nets and links to volume. Surface Area and Volume of Cuboids Plans and Elevations

Year 9

	Advent 1	Advent 2	Lent 1	Lent 2	Pentecost 1	Pentecost 2
Key content	Probability and Statistics D Algebra G	Ratio, Proportion and Rates of Change B Algebra H	Ratio, Proportion and Rates of Change Geometry H	Geometry I Algebra I	Geometry J Algebra J	Algebra K Number H
Key concepts and skills	Averages and Range Mean from Tables Comparing Sets of Data Finding the Nth Term of a Linear Sequence Generating terms of a sequence given the nth term Working out if a term is in a sequence Recognize, describe and continue geometric sequences Introduction to Fibonacci Sequence and other common sequences	Percentage of an Amount Percentage increase and decrease Expressing one number as a percentage of another Comparing quantities using percentages Drawing Straight Line Graphs and using a Table of Values	Compound Units Scale Drawings Map Scales Identify, describe and construct congruent shapes with and without coordinate grids.	Pythagoras' Theorem Trigonometry in right-angled Triangles Gradients of straight lines Real life graphs	Congruency Similarity Obtain simple geometric proofs Drawing quadratic graphs from a table of values Using linear and quadratic graphs to make estimates for values of x and y. Recognizing different types of graphs	Introduction to functions and function notation Surds Calculating with surds Transition to KS4