



Holy Trinity

Maths Long Term Plan – Secondary 2023 - 24

| Year | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|------|---|---|--|---|--|--|
| Y7 | <u>The number system 1</u> -Integers and decimals -Approximations and estimations - Positive and negative numbers - Order of operations | <u>The number system 2</u> - Factors and multiples - Prime factor decomposition - Expressions and equations | <u>2D Geometry</u> - Angles - Classifying 2-D shapes - Constructions | <u>The Cartesian plane</u> - Coordinates - Area of 2-D shapes -Transformations | <u>3D -Geometry</u> -3D shapes - Volume and surface area of Prisms | <u>Representations and reasoning with data</u> - Measure - Univariate data |
| Y8 | <u>Fractions</u> - Conceptualising and comparing fractions - Manipulating and calculating with fractions | <u>Ratio and Proportion</u> - Percentages - Ratio | <u>Proportional reasoning</u> - Proportion | <u>Proportional reasoning</u> Proportional graphs - Pie charts - Circles | <u>Equations and inequalities</u> - Solving equations - Solving inequalities | <u>Graphical representations</u> - Sequences - Linear graphs |
| Y9 | <u>Probability</u> - FDP Review Recurring decimals -Probability - Venn diagrams Set theory | <u>Geometry of triangles</u> - Angles in polygons Bearings Circle theorem - Constructions, congruence, and loci - Pythagoras' Theorem 3d pythagoras | <u>Ratio and proportion</u> - Ratio review - Similarity and enlargement 2d and 3d similarity | <u>Linear equations</u> - Formula - Trinomials - Form and solve equations - Simultaneous equations | <u>Reasoning with number</u> -Indices and standard form - Growth and decay | <u>Statistics</u> - Bivariate data -Stem and leaf diagrams Averages from tables CF and boxplots |
| Year | Autumn 1- Using Number | Autumn 2 – Types of number | Spring 1- Representing data | Spring 2 – – 2D and 3D shape | Summer 1- PAV | Summer 2 - Probability |

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| Y10 Foundation | <ul style="list-style-type: none"> -Integers and decimals including negative -Fraction arithmetic -Approximation and estimation -Limits of accuracy -Indices and roots | <ul style="list-style-type: none"> -Factors and multiples -Sequences and nth term -Manipulating expressions -Solve linear equations and inequalities | <ul style="list-style-type: none"> -Sampling and averages -Statistical diagrams -Bivariate data | <ul style="list-style-type: none"> -Properties of 2D and 3D shape -Plans and elevations -Constructions -Loci -Transformations | <ul style="list-style-type: none"> - Pythagoras - Perimeter - Area - Surface area - Volume | <ul style="list-style-type: none"> Probability Tree diagrams Venn diagrams |
| Y10 Higher | <ul style="list-style-type: none"> -Integers and decimals - Capture recapture -Upper and lower bounds -Indices -Surds | <ul style="list-style-type: none"> -Quadratic Sequences - Manipulate expressions - Simultaneous equations | <ul style="list-style-type: none"> - Statistical diagrams | <ul style="list-style-type: none"> -Similarity and congruence -Vectors | <ul style="list-style-type: none"> - Pythagoras - Perimeter - Area - Surface area - Volume | <ul style="list-style-type: none"> Probability Set theory |

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 |
|---------------------------|---|--|---|--|
| Y11 Foundation | UNIT 11: Ratio and Proportion UNIT 12: Right-angled triangles: Pythagoras and trigonometry UNIT 13: Probability | UNIT 14: Multiplicative reasoning: more percentages, rates of change, compound measures UNIT 15: Constructions: triangles, nets, plan and elevation, loci, scale drawings and bearings | UNIT 16: Algebra: quadratic equations and graphs UNIT 17: Perimeter, area, and volume 2: circles, cylinders, cones and spheres UNIT 18: More fractions, reciprocals, standard form, zero and negative indices | UNIT 19: Congruence, similarity and vectors UNIT 20: Rearranging equations, graphs of cubic and reciprocal functions and simultaneous equations |
| Y11 Higher | UNIT 10: Probability UNIT 11: Multiplicative reasoning: direct and inverse proportion, relating to graph form for direct, compound measures, repeated proportional change UNIT 12: Similarity and congruence in 2D and 3D | UNIT 13: Sine and cosine rules, $ab \sin C$, trigonometry and Pythagoras' Theorem in 3D, trigonometric graphs, and accuracy and bounds UNIT 14: Statistics and sampling, cumulative frequency and histograms | UNIT 15: Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics UNIT 16: Circle theorems and circle geometry UNIT 17: Changing the subject of formulae (more complex), algebraic fractions, solving equations arising from algebraic fractions, rationalising surds, proof | UNIT 18: Vectors and geometric proof UNIT 19: Direct and indirect proportion: using statements of proportionality, reciprocal and exponential graphs, rates of change in graphs, functions, transformations of graphs |