

## Hartford Church of England High School – Year 10 – Maths - Foundation

| Year 10           | HT1   | HT2   | HT3   | HT4  | HT5   | HT6   |
|-------------------|---|---|---|--|---|---|
| <b>Topic(s)</b>   | Number, powers, roots, decimals and rounding to 10,100,1000<br>Product of Prime Factors HCF/LCM<br>Multiples in context<br>Fractions<br>Percentage of an amounts<br>Interest,<br>Growth and decay,<br>Reverse Percentages   | Ratio,<br>Proportion – Recipes<br>Best value<br>Exchange rates<br>Rounding<br>Error intervals<br>Estimation | Expand and simplify expressions<br>Substituting into simple formulae<br>Factorising<br>Solving equations<br>Changing the subject<br>Inequalities                      | Probability<br>Probability trees<br>Two-way tables<br>Frequency trees<br>Venn diagrams<br>Tables and Charts<br>Frequency diagrams  | Sequences<br>Coordinate Geometry<br>Straight line graphs<br>Properties of shapes<br>Perimeter and area<br>Alternate and corresponding angles<br>Bearings<br>Interior and exterior angles of polygons  | Circles, arcs and sectors<br>Surface area and volume<br>Plans and elevations<br>Scatter graphs<br>Time series<br>Pie charts<br>Averages<br>Averages from a table  |
| <b>Focus</b>      | Number, powers, roots, decimals, rounding<br>Fractions and Percentages<br>Product of prime factors<br>HCF/LCM<br>Multiples in context<br>Rounding and error intervals<br>Estimation<br>Percentage of an amount<br>Use of a calculator<br>Reverse Percentages<br>Fractions | Ratio - simplify, divide, express a multiplicative relationship<br>Proportion - unitary method              | Expressions and substitution<br>Expand, simplify and factorise one and two brackets<br>Solving equations<br>Subject of formula<br>Represent and solve<br>Inequalities | Probability - listing outcomes<br>Understand probability as a fraction, decimal or percentage<br>Sample space diagrams<br>Construct Probability trees<br>Construct Two Way Tables and Frequency trees<br>Draw Venn diagrams and work out probabilities<br>Drawing & interpreting tables and charts<br>Frequency diagrams | Sequences - recognise and find $n^{\text{th}}$ term.<br>Plotting Coordinates<br>Straight line graphs - plot and draw<br>Properties of shapes and angle facts<br>Angles in parallel lines<br>Bearings<br>Interior and exterior angles of polygons - apply formulae | Circles, arcs and sectors<br>Surface area and volume of 3D shapes<br>Convert between metric measures<br>Plans and elevations<br>Draw scatter graphs<br>Construct Time Series<br>Graphs<br>Pie Charts<br>Draw stem and leaf diagrams<br>Averages from a list<br>Averages from a Table including estimating |
| <b>Vocabulary</b> | Factor, Multiple, Product, Prime, Percent, Numerator, Denominator,  | Ratio, Proportion, Parts, Unitary, Value, Estimate, Round   | Expression, Term, Variable, Equation, Inverse, Operation, Solve, Simplify   | Probability, Chance, Evens, Certain, Impossible, Mutually Exclusive, Exhaustive, Union, Intersection, Sets   | Terms, Arithmetic, Geometric, Fibonacci<br>Quadratic, Gradient<br>y-intercept, Equation<br>Interior, Exterior   | Circle, Circumference, Area, Arc, Tangent, Chord, Sector, Segment, Plan, Elevation, Correlation, Mean, Median, Mode, Range, Frequency   |

