# Bolingbroke **Mathematics**

#### Year 7

| Autumn I  | Autumn 2   | Spring I  | Spring 2  | Summer I   | Summer 2   |
|---|--|---|---|--|--|
| <ul> <li>Place value</li> <li>Rounding</li> <li>Estimating</li> <li>Addition and<br/>Subtraction of<br/>integers and decimals</li> <li>Unit conversion</li> <li>Perimeter</li> <li>Negative<br/>number(ordering,<br/>addition and<br/>subtraction)</li> </ul> | <ul> <li>Negative number<br/>(multiplication and<br/>division)</li> <li>Multiples, Factors,<br/>LCM and HCF</li> <li>Powers and Roots</li> <li>Prime Factorisation</li> <li>Multiplication and<br/>Division of integers<br/>and decimals</li> <li>Area of rectangles,<br/>parallelograms,<br/>triangles, trapeziums<br/>and compound<br/>shapes</li> </ul> | <ul> <li>Order of Operations</li> <li>Simplifying algebraic<br/>expressions</li> <li>Forming algebraic<br/>expressions</li> <li>Expanding a single<br/>bracket</li> <li>Factorising</li> <li>Substitution</li> <li>Function Machines</li> <li>Solving Equations</li> <li>Sequences</li> </ul> | <ul> <li>Symmetry and<br/>Tessellation</li> <li>Drawing and<br/>Measuring angles</li> <li>Finding unknown<br/>angles (straight line,<br/>around a point,<br/>vertically opposite,<br/>triangle, quadrilateral)</li> </ul> | <ul> <li>Equivalent fractions</li> <li>Simplifying fractions</li> <li>Change mixed<br/>numbers to improper<br/>fractions and vice<br/>versa</li> <li>Compare and order<br/>fractions and decimals</li> <li>Adding and<br/>Subracting fractions</li> <li>Fraction of an<br/>amount</li> <li>Multiplying and<br/>Dividing fractions</li> </ul> | <ul> <li>Mean, median and<br/>mode averages</li> <li>Range</li> <li>Averages from a table</li> <li>Construct and<br/>interpret statistical<br/>diagrams including pie<br/>charts</li> <li>Questionnaires and<br/>Sampling</li> </ul> |

# Bolingbroke **Mathematics**

### Year 8

| Autumn I  | Autumn 2   | Spring I  | Spring 2  | Summer I   | Summer 2  |
|---|--|---|---|--|---|
| <ul> <li>Convert between<br/>percentages, vulgar<br/>fractions and decimals</li> <li>Percentage of a<br/>quantity</li> <li>Finding the whole,<br/>given a part</li> <li>Percentage increase<br/>and decrease,<br/>including multipliers</li> <li>Compound Interest<br/>and Depreciation</li> <li>Percentage Change</li> <li>Reverse percentages</li> <li>Ratio</li> <li>Direct and Indirect<br/>Proportion</li> </ul> | <ul> <li>Circumference of a circle and arc length</li> <li>Area of a circle and sector</li> <li>3-D shapes and their nets</li> <li>Plans and Elevations</li> <li>Surface Area</li> <li>Volume of cuboid, prism, cylinder, composite solids</li> <li>Area and Volume Unit Conversion</li> </ul> | <ul> <li>Simplifying algebraic<br/>expressions</li> <li>Expanding a single<br/>bracket</li> <li>Factorising</li> <li>Forming algebraic<br/>expressions</li> <li>Solving Equations</li> <li>Rearranging Formulae</li> <li>Speed, Distance,<br/>Time</li> <li>Density, Mass,<br/>Volume</li> <li>Pressure, Force, Area</li> </ul> | <ul> <li>Coordinates including midpoint of a line segment</li> <li>Scatter Graphs</li> <li>Frequency Polygons</li> <li>Linear Graphs</li> </ul> | <ul> <li>Probability (including sample space diagrams, frequency trees and Venn diagrams)</li> <li>Congruence and similarity</li> <li>Enlargement</li> </ul> | <ul> <li>Finding unknown<br/>angles (parallel lines)</li> <li>Angles in Polygons</li> <li>Constructing<br/>Triangles</li> <li>Bisectors</li> <li>Loci and<br/>Construction</li> </ul> |

## Bolingbroke **Mathematics**

### Year 9

| Autumn I   | Autumn 2  | Spring I   | Spring 2   | Summer I   | Summer 2                        |
|--|---|--|--|--|---------------------------------|
| <ul> <li>Standard Form</li> <li>Direct and inverse proportion</li> <li>Calculation with scales</li> <li>Forming and Solving equations</li> <li>Inequalities</li> </ul> | <ul> <li>Pythagoras' Theorem</li> <li>Trigonometry in<br/>right-angled triangles</li> <li>Bearings</li> </ul> | <ul> <li>Simplifying algebraic<br/>expressions</li> <li>Expanding double<br/>brackets</li> <li>Factorising quadratic<br/>expressions</li> <li>Substitution</li> <li>Drawing quadratic<br/>graphs</li> <li>Solving quadratic<br/>equations</li> <li>Simultaneous<br/>Equations</li> </ul> | <ul> <li>Sequences</li> <li>Algebraic Proof</li> <li>Linear Graphs</li> <li>Cubic and Reciprocal<br/>Graphs</li> <li>Real Life Graphs</li> </ul> | <ul> <li>Congruence</li> <li>Vectors</li> <li>Transformations<br/>(translation, rotation,<br/>reflection)</li> </ul> | • Probability Trees<br>Revision |