

# YEAR 7 CURRICULUM



At Brightstowe we use Maths Mastery materials to plan and deliver high-quality mathematics lessons to our children in year 7. We are dedicated to enabling our children to achieve academic mastery in mathematics at the start of their secondary education. We do so through the use of a **Concrete – Pictorial – Abstract** approach to learning mathematics. This enables our children to build solid foundations in their understanding of maths, which is vital in order to master the subject.

Autumn 1 Solve Word Problems (Add and Subtract)	Autumn 2 Explain and Investigate (Multiply and Divide)	Spring 1 Geometry	Spring 2 Fractions	Summer 1 Applications of Algebra	Summer 2 Percentages and Statistics
<b>All should be confident and competent in Key Stage 2 material. Review of these pre-requisites may be useful for each unit:</b>					
<ul style="list-style-type: none"> <li>Number bonds</li> <li>Converting units</li> <li>Money +/-</li> <li>Measurement</li> </ul>	<ul style="list-style-type: none"> <li>Mental Strategies</li> <li>Multiplication facts</li> <li>Multiplication Strategies</li> <li>Solving problems with the four rules of number</li> </ul>	<ul style="list-style-type: none"> <li>Lengths and units</li> <li>Parallel and perpendicular</li> <li>Working with angles</li> <li>Division and the mean</li> </ul>	<ul style="list-style-type: none"> <li>Equal parts</li> <li>Factors and multiples</li> <li>Tenths and hundredths</li> <li>Word problems</li> <li>Fractional areas</li> </ul>	<ul style="list-style-type: none"> <li>Areas of rectangles and triangles</li> <li>Number patterns</li> <li>Algebraic notation</li> <li>Triangle and quadrilateral properties</li> </ul>	<ul style="list-style-type: none"> <li>Four Rules – decimals and problem solving</li> <li>Fractions of shapes</li> <li>Equivalence</li> <li>Order of operations</li> </ul>
<b>All will have access to this specific Key Stage 3 content:</b>					
<ul style="list-style-type: none"> <li>Place value (inc. decimals)</li> <li>Add and subtract (inc. decimals)</li> <li>Estimation</li> <li>Perimeter</li> <li>Word problems</li> </ul>	<ul style="list-style-type: none"> <li>Factors, HCF, multiples, LCM</li> <li>Multiply and divide (inc. decimals)</li> <li>Area of rectangle and triangle</li> <li>Calculate the mean</li> </ul>	<ul style="list-style-type: none"> <li>Draw, measure and name acute and obtuse angles</li> <li>Find unknown angles (straight lines, at a point, vertically opposite)</li> <li>Properties of triangles and quadrilaterals</li> </ul>	<ul style="list-style-type: none"> <li>Equivalent fractions</li> <li>Compare and order fractions and decimals</li> <li>Change mixed numbers to improper fractions and vice versa</li> <li>Fraction of a quantity</li> <li>Multiply and divide fractions</li> </ul>	<ul style="list-style-type: none"> <li>Order of operations</li> <li>Substitution</li> <li>Simplifying algebraic expressions</li> <li>Solve word problems with expressions</li> <li>Sequences (term-to-term, not nth term)</li> </ul>	<ul style="list-style-type: none"> <li>Construct and interpret statistical diagrams including pie charts and</li> <li>Convert between percentages and fractions and decimals</li> <li>Percentage of a quantity</li> <li>Find the whole given the part and the percentage</li> </ul>
<b>As well as looking at the Termly Projects, highest attaining students may be stretched through depth by consideration of the following:</b>					
<ul style="list-style-type: none"> <li>Different counting systems/bases</li> <li>Generalisation</li> <li>Upper and lower bounds</li> </ul>	<ul style="list-style-type: none"> <li>Shikaku</li> <li>Different counting systems/bases</li> <li>Alternative methods for multiplication</li> <li>Generalisation</li> </ul>	<ul style="list-style-type: none"> <li>Tessellating triangles and quadrilaterals</li> <li>Tangram investigations</li> <li>Rigid shapes</li> </ul>	<ul style="list-style-type: none"> <li>Terminating and recurring decimals</li> <li>Fractions of tangrams</li> <li>Shape block challenges</li> </ul>	<ul style="list-style-type: none"> <li>Four fours</li> <li>Patterns and generalising</li> <li>Algebraic mean questions</li> </ul>	<ul style="list-style-type: none"> <li>Comparing and converting between representations</li> <li>Applications of percentages</li> </ul>