

## Year 7 Maths

### Algebra

- Introduction to algebra and the rules of algebra.
- Substitution.
- Functions and function machines.

### Numbers and the Number System

- Square, cube and prime numbers.
- Highest Common Factor (HCF) and Lowest Common Multiple (LCM).
- Calculator skills.

### Counting and Comparing

- Directed number.
- Ordering integers and fractions.

### Calculating

- Multiplying and dividing decimals.
- Written methods for division.

### Visualising and Constructing

- Language of 3D shape.
- Geometric notation.
- Symmetry.

### Investigating Properties of Shape

- Faces, edges and vertices.
- Nets.
- Characteristics of 2D shapes.

### Exploring Fractions, Decimals, Percentages

- Fractions of amounts.
- Simplifying Fractions.
- Improper Fractions and mixed Numbers.
- Four operations with fractions.
- Calculating percentages.

### Proportional Reasoning

- Ratio notation.
- Simplifying ratio.
- Divide amounts into a given ratio.

### Pattern Sniffing

- Generating sequences.
- Discovering term-to-term rules.
- Solving sequencing problems.

<b>Measuring Space</b> <ul style="list-style-type: none"> <li>• Using decimals in measurement.</li> <li>• Converting between metric and imperial measures.</li> </ul>	
<b>Investigating Angles</b> <ul style="list-style-type: none"> <li>• Angles around a point.</li> <li>• Angles in triangles/quadrilaterals.</li> </ul>	
<b>Solving Equations and Inequalities</b> <ul style="list-style-type: none"> <li>• Missing numbers.</li> <li>• Solve one-step equations.</li> <li>• Substitution.</li> </ul>	
<b>Calculating Space</b> <ul style="list-style-type: none"> <li>• Area and Perimeter.</li> <li>• Compound Shapes.</li> <li>• Irregular Polygons.</li> </ul>	
<b>Checking, approximating, estimating</b> <ul style="list-style-type: none"> <li>• Rounding.</li> <li>• Estimation.</li> <li>• Inverse Operations.</li> </ul>	
<b>Mathematical Movement</b> <ul style="list-style-type: none"> <li>• Graphs and Coordinates</li> <li>• Reflections.</li> <li>• Rotations and Translations.</li> </ul>	
<b>Presentation of Data</b> <ul style="list-style-type: none"> <li>• Categorising data.</li> <li>• Frequency tables.</li> <li>• Pie charts.</li> </ul>	
<b>Measuring Data</b> <ul style="list-style-type: none"> <li>• Mean, Median, Mode and Range.</li> </ul>	
<b>Advice to students for independent study</b>	Log on to online resources such as Maths Watch to access video tutorials and complete additional questions on the topics being studied.