

# KS3 Curriculum Overview 2021/22

## Department: Mathematics

### Description of KS3 Curriculum:

The KS3 curriculum starts by building upon learning from primary school, with an aim to deepen students' understanding of mathematical concepts. This helps students improve their mastery and fluency with different topics. As students progress through KS3 the demand of new content increases and in Year 9 students start to be introduced to concepts in preparation for GCSE.

Resources are designed to teach the skills students will need; Number, Algebra, Ratio, Proportion and Rates of Change, Geometry and Measures, Probability and Statistics and understanding how to solve various questions in a plethora of problem-solving contexts.

The KS3 curriculum also develops numeracy skills and helps embed these skills across the curriculum.

### Sequence of Learning:

KS3	Half Term 1 Content	Half Term 2 Content	Half Term 3 Content
<b>Year 7</b>	<ul style="list-style-type: none"> <li>Reasoning with Integers</li> <li>Mental Addition and Subtraction of Integers</li> <li>Written Addition and Subtraction of Integers</li> <li>Addition and Subtraction of Decimals</li> <li>Multiplication and Division of Integers</li> </ul>	<ul style="list-style-type: none"> <li>Multiplication and Division of Integers</li> <li>Area</li> <li>Multiplication and Division of Decimals</li> <li>Further Applications of Multiplication and Division</li> <li>Working with Units</li> <li>Angles and Angle Properties of Straight Lines</li> </ul>	<ul style="list-style-type: none"> <li>Angles and Angle Properties of Straight Lines</li> <li>Properties of Triangles</li> <li>Properties of Quadrilaterals</li> <li>Symmetry and Tessellations</li> <li>Understand and Use Equivalent Fractions</li> </ul>
<b>Year 8</b>	<ul style="list-style-type: none"> <li>Prime Numbers and Factorisation (includes powers and roots)</li> <li>Calculations with Fractions</li> <li>Angles and Angle Properties of Straight Lines</li> <li>Positive and Negative Numbers</li> </ul>	<ul style="list-style-type: none"> <li>Positive and Negative Numbers</li> <li>Sequences, Expressions and Equations</li> <li>Triangles, Quadrilaterals and Properties of Parallel Lines</li> </ul>	<ul style="list-style-type: none"> <li>Triangles, Quadrilaterals and Properties of Parallel Lines</li> <li>Length and Area</li> <li>Percentage Change</li> <li>Rounding and Accuracy</li> </ul>
<b>Year 9</b>	<ul style="list-style-type: none"> <li>Coordinates</li> <li>Linear Graphs</li> <li>Scales and Standard Form</li> <li>Direct and Inverse Proportion</li> <li>Properties of Angles in Parallel Lines</li> </ul>	<ul style="list-style-type: none"> <li>Expanding and Factorising</li> <li>Linear and Non-Linear Sequences</li> <li>Expressions, Equations and Formulae</li> <li>Constructions</li> <li>Congruence</li> <li>Ratio and Rate</li> </ul>	<ul style="list-style-type: none"> <li>Ratio and Rate</li> <li>Percentage Change</li> <li>Pythagoras' Theorem</li> <li>Scatter Graphs</li> <li>Graphical Solutions</li> </ul>

## Sequence of Learning:

KS3	Half Term 4 Content	Half Term 5 Content	Half Term 6 Content
Year 7	<ul style="list-style-type: none"><li>• Fractions of Amounts</li><li>• Multiply and Divide Fractions</li><li>• Order of Operations (includes powers and roots)</li></ul>	<ul style="list-style-type: none"><li>• Order of Operations (includes powers and roots)</li><li>• Introduction to Algebra</li><li>• Percentages</li></ul>	<ul style="list-style-type: none"><li>• Percentages</li><li>• Working with Data</li></ul>
Year 8	<ul style="list-style-type: none"><li>• Circumference and Area of Circles</li><li>• Ratio and Rate</li></ul>	<ul style="list-style-type: none"><li>• Ratio and Rate</li><li>• 3D Shapes and Nets</li><li>• Surface Area and Volume of 3D Shapes</li></ul>	<ul style="list-style-type: none"><li>• Statistics</li></ul>
Year 9	<ul style="list-style-type: none"><li>• Graphical Solutions</li><li>• Length and Area</li><li>• Angles in Polygons</li><li>• Linear Equations and Inequalities</li></ul>	<ul style="list-style-type: none"><li>• Linear Equations and Inequalities</li><li>• Probability</li><li>• Similarity and Enlargement</li><li>• Transformations</li></ul>	<ul style="list-style-type: none"><li>• Transformations</li><li>• Working with Data</li></ul>