

## Mathematics Pearson Edexcel GCSE: Foundation Content

<b>Half term 1</b>	<b>Unit 1: Calculating</b> Indices, Standard form and Bounds <b>Unit 2: Visualising and Constructing</b> Plans/Elevations, Constructions and Loci <b>Unit 3: Algebraic Proficiency - Tinkering</b> Expanding brackets, factorising and forming expressions
<b>Half term 2</b>	<b>Unit 4: Proportional Reasoning</b> Similar/compound shapes, compound measures, and direct/inverse proportion <b>Unit 5: Pattern Sniffing</b> Generate sequences and Nth term
<b>Half term 3</b>	<b>Unit 6: Solving Equations and Inequalities 1</b> Solving inequalities and number lines <b>Unit 7: Calculating Space</b> Circles, cylinders, sectors and Pythagoras <b>Unit 8: Conjecturing</b> Reasoning and proof of geometric problems
<b>Half term 4</b>	<b>Unit 9: Algebraic Proficiency – Visualising</b> Graphs, gradients and parallel lines <b>Unit 10: Solving Equations and Inequalities 2</b> Solving equations and simultaneous equations
<b>Half term 5</b>	<b>Unit 11: Understanding Risk</b> Tree diagrams and relative frequencies <b>Unit 12: Presentation of Data</b> Scatter graphs and time series
<b>Half term 6</b>	Start the year 11 Scheme of Work
<b>Homework expectations</b>	Students are expected to do at least one hour of homework each week which will support students in consolidating learning from lessons. It may be completing further practice, exam questions, online or research. In addition to this, students should be continuously revisiting previous work, as this could be examined on their GCSE exam.
<b>By the time you finish key stage 4...</b>	Students should have developed the following: <ul style="list-style-type: none"> <li>• Fluent knowledge, skills and understanding of mathematical methods and concepts</li> <li>• Acquire, select and apply mathematical techniques to solve problems</li> <li>• Reason mathematically, make deductions and inferences, and draw conclusions</li> <li>• Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context</li> </ul>

## Subject: Pearson Edexcel GCSE Maths: Foundation Content (1MA1)

<b>Half term 1</b>	<b>Unit 1: Investigating properties of shapes</b> Trigonometry <b>Unit 2: Calculating</b> Fractional/Negative indices <b>Unit 3: Solving Equations and Inequalities 1</b> Simultaneous equations
<b>Half term 2</b>	<b>Unit 4: Mathematical Movement 1</b> Transformations <b>Unit 5: Algebraic Proficiency – Tinkering</b> Expanding brackets and factorising quadratics <b>Unit 6: Proportional Reasoning</b> Direct and inverse proportion
<b>Half term 3</b>	<b>Unit 7: Pattern Sniffing</b> Generating sequences and Nth term <b>Unit 8: Calculating Space</b> Volume/Surface area of complex shapes <b>Unit 9: Algebraic Proficiency - Visualising</b> Plotting Graphs and recognising key points
<b>Half term 4</b>	<b>Unit 10: Exploring Fractions, decimals and percentages</b> Compound interest, depreciation and repeat percentage change Unit 11: Solving Equations and Inequalities 2 Solving quadratics <b>Unit 12: Analysing Statistics</b> Sampling and averages from tables
<b>Half term 5</b>	<b>Unit 13: Mathematical Movement 2</b> Vectors  <b>Revision &amp; Exam Preparation</b>
<b>Homework expectations</b>	Students are expected to do at least one hour of homework each week which will support students in consolidating learning from lessons. It may be completing further practice, exam questions, online or research. In addition to this, students should be continuously revisiting previous work, as this could be examined on their GCSE exam.
<b>By the time you finish key stage 4...</b>	Students should have developed the following: <ul style="list-style-type: none"> <li>• Fluent knowledge, skills and understanding of mathematical methods and concepts</li> <li>• Acquire, select and apply mathematical techniques to solve problems</li> <li>• Reason mathematically, make deductions and inferences, and draw conclusions</li> <li>• Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context</li> </ul>

<b>Mathematics GCSE Year 10 Higher content</b>	
<b>Half term 1</b>	<b>Unit 1: Investigating Properties of Shapes</b> Trigonometry and exact values <b>Unit 2: Calculating</b> Fractional/Negative indices and bounds <b>Unit 3: Solving Equations &amp; Inequalities 1</b> Simultaneous equations, rearranging formulae and iteration
<b>Half term 2</b>	<b>Unit 4: Mathematical Movement 1</b> Transformations <b>Unit 5: Algebraic Proficiency – Tinkering</b> Factorise quadratics, algebraic fractions and expanding cubics <b>Unit 6: Proportional Reasoning</b> Direct/Inverse proportion (algebraically and graphically)
<b>Half term 3</b>	<b>Unit 7: Pattern Sniffing</b> Generate quadratic sequences and Nth terms <b>Unit 8: Solving Equations &amp; Inequalities 2</b> Inequalities and regions <b>Unit 9: Calculating Space</b> Volume/Surface area of complex shapes and similar solids <b>Unit 10: Conjecturing</b> Circle Theorems
<b>Half term 4</b>	<b>Unit 11: Algebraic Proficiency – Visualising 1</b> Plotting graphs, area under curves and key points on a quadratic graph <b>Unit 12: Exploring Fractions, Decimals and Fractions</b> Recurring decimals and compound interest/depreciation
<b>Half term 5</b>	<b>Unit 13: Solving Equations &amp; Inequalities 3</b> Formulae, factorising and completing the square for quadratics <b>Unit 14: Understanding Risk</b> Venn diagrams
<b>Half term 6</b>	<b>Unit 15: Analysing Statistics</b> Sampling, cumulative frequency graphs and boxplots <b>Unit 16: Algebraic Proficiency – Visualising 2</b> Perpendicular lines and circle graphs <b>Unit 17: Mathematical Movement 2</b> Vectors
<b>Homework expectations</b>	Students are expected to do at least one hour of homework each week which will support students in consolidating learning from lessons. It may be completing further practice, exam questions, online or research. In addition to this, students should be continuously revisiting previous work, as this could be examined on their GCSE exam.
<b>By the time you finish key stage 4 you'll be...</b>	Students should have developed the following: <ul style="list-style-type: none"> <li>• Fluent knowledge, skills and understanding of mathematical methods and concepts</li> <li>• Acquire, select and apply mathematical techniques to solve problems</li> <li>• Reason mathematically, make deductions and inferences, and draw conclusions</li> <li>• Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context</li> </ul>

<b>Mathematics Year 11 Higher Content</b>	
<b>Half term 1</b>	<p><b>Unit 1 – Investigating properties of shapes</b> 3D Pythagoras, 3D Trigonometry, Sine Rule, Cosine Rule and 0.5abSinC</p> <p><b>Unit 2- Calculating</b> Surds and Algebraic Fractions</p> <p><b>Unit 3 – Solving Equations &amp; Inequalities 1</b> Completing the Square, Quadratic Formulae, Turning Points, Iteration</p>
<b>Half term 2</b>	<p><b>Unit 4 – Mathematical Movement 1</b> Negative Enlargement and Combinations of transformations</p> <p><b>Unit 5 – Algebraic Proficiency: Tinkering</b> Function Notation, Composite Functions and Inverse Functions</p> <p><b>Unit 6 – Proof</b> Algebraic Proof and Geometric Proof</p> <p><b>Unit 7 – Pattern Sniffing</b> Geometric Sequences and Non-Standard sequences</p>
<b>Half term 3</b>	<p><b>Unit 8 – Solving Equations &amp; Inequalities 2</b> Quadratic Inequalities and Linear and Non-Linear Simultaneous Equations</p> <p><b>Unit 9 – Algebraic Proficiency: Visualising 1</b> Trig Graphs and Transformation of Graphs</p> <p><b>Unit 10 – Analysing Statistics</b> Histograms</p>
<b>Half term 4</b>	<p><b>Unit 11 - Algebraic Proficiency: Visualising 2</b> Roots of quadratics, Discriminant, and Gradient of a Curve</p> <p><b>Unit 12 – Mathematical Movement 2</b> Vectors</p>
<b>Half term 5</b>	Revision & Exam Preparation
<b>Homework expectations</b>	<p>Students are expected to do at least one hour of homework each week which will support students in consolidating learning from lessons. It may be completing further practice, exam questions, online or research.</p> <p>In addition to this, students should be continuously revisiting previous work, as this could be examined on their GCSE exam.</p>
<b>By the time you finish key stage 4...</b>	<p>Students should have developed the following:</p> <ul style="list-style-type: none"> <li>• Fluent knowledge, skills and understanding of mathematical methods and concepts</li> <li>• Acquire, select and apply mathematical techniques to solve problems</li> <li>• Reason mathematically, make deductions and inferences, and draw conclusions</li> <li>• Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context</li> </ul>