

Curriculum Map Year 11 GCSE MATHEMATICS: Foundation

Topic Name	Term	Skills developed with link to NC Subject content	Reflection on previous link in the curriculum	Progress to future link in the curriculum
Review of Ratio and Proportion	<i>Autumn HT1</i>	- Understanding ratio. - Dividing a quantity into a ratio. - Direct Proportion problems. - Recipes and Best Buys.	<i>Year 9: Ratio and Proportion.</i> <i>Year 10: Direct and Inverse Proportion.</i>	<i>Examination practice.</i>
Review of Volume and Surface Area	<i>Autumn HT1</i>	- Use the correct terms when working with 3D shapes. - Calculate the surface area and volume of a cuboid. - Calculate the volume and surface area of a prism. - Calculate the volume and surface area of a cylinder.	<i>Year 10: Volume and Surface Area</i>	<i>Year 11: Curved Shapes and Pyramids.</i>
Curved Shapes and Pyramids	<i>Autumn HT1</i>	- Review Circumference and Area of a circle. - Calculate the length of an arc - Calculate the area and angle of a sector. - Calculate the volume and surface area of a pyramid. - Calculate the volume and surface area of a cone. - Calculate the volume and surface area of a sphere.	Year 11: Review of Volume and Surface Area	<i>Examination practice.</i>
Trigonometry and Review of Pythagoras' Theorem	<i>Autumn HT2</i>	- Review Pythagoras' theorem for calculating the length of the hypotenuse and shorter sides in a right-angled triangle. - Solve problems using Pythagoras' theorem. - Use Pythagoras' theorem in isosceles triangles. - Use trigonometric ratios to calculate a length in a right-angled triangle. - Use the trigonometric ratios to calculate an angle. - Use trigonometry to solve problems involving isosceles triangles. - Solve problems using bearings, and problems using angles of elevation or depression. - Solve practical problems using trigonometry.	<i>Year 10: Pythagoras' Theorem</i>	<i>Examination practice.</i>
Congruence and Similarity	<i>Autumn HT2</i>	- Demonstrate that two triangles are congruent. - Recognise similarity in any two shapes. - Show that two shapes are similar. - Work out the scale factor between similar shapes.	<i>Year 9: Ratio and Proportion</i> <i>Year 9: Transformations</i>	<i>Examination practice.</i>
Review of Linear Equations	<i>Autumn HT2</i>	Solve equations with fraction, brackets and variables on both sides.	<i>Year 9: Linear Equations</i>	<i>Year 11: Simultaneous Equations and linear inequalities.</i>
Simultaneous Equations and linear inequalities	<i>Autumn HT2 Spring HT3</i>	- Solve simultaneous linear equations in two variables using the elimination method. - Solve simultaneous linear equations in two variables using the substitution method. - Solve simultaneous linear equations by balancing coefficients. - Solve problems using simultaneous linear equations. - Solve a simple linear inequality and represent it on a number line.	<i>Year 10: Review of Linear Equations</i>	<i>Examination practice.</i>

Review of Linear Graphs	<i>Spring HT3</i>	• Drawing linear graphs. • Gradient of a line. • Drawing graphs by the gradient intercept method. • Finding the equation of a line from its graph. • The equation of a parallel line • Real life uses of graphs. • Solving simultaneous equations using graphs.	<i>Year 10: Linear Graphs</i>	<i>Year 11: Non-linear Graphs</i>
Non-linear Graphs	<i>Spring HT3, HT4</i>	• Review speed, distance and time • Interpret distance-time graphs • Draw a graph of the depth of liquid as a container is filled. • Read information from a velocity time graph • Work out acceleration from a velocity time graph • Draw and read values from quadratic graphs • Solve a quadratic equation by factorisation • Identify the significant points of a quadratic function graphically • Identify the roots of a quadratic function by solving a quadratic equation. • Identify the turning point of a quadratic function.	<i>Year 11: Review of Linear Graphs</i>	<i>Examination practice.</i>
Vectors	<i>Spring HT4</i>	• Represent vectors • Add and subtract vectors.	<i>Year 9: Transformations</i>	<i>Examination practice.</i>
Revision Examination Practice	<i>Spring HT4 Summer HT5</i>			