GUISELEY SCHOOL

ASPIRE CARE GROW SUCCEED

Curriculum Map Subject: Maths

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
7	**Curriculum Topics:** • Addition and subtraction • Place Value • Multiplication and Division	**Curriculum Topics:** • Applied Multiplication and Division • Types of Numbers • Basic Algebra	**Curriculum Topics:** • Fractions • Percentages	**Curriculum Topics:** • Geometry • Statistics	**Curriculum Topics:** • Geometry 2 • Sequences • Ratio and Proportion	**Curriculum Topics:** • Construction and Scale Drawing • Equations
	Links with previous topics: • Knowledge of 4 operations from year 6	**Links with previous topics:** • Skills from Multiplication and division unit applied to problems involving powers and area. • Types of number is linked to understanding of times tables and uses prior learning on powers. • Basic algebra applies skills from the Types of Numbers unit (negative numbers). It also requires students to apply knowledge of powers and roots.	**Links with previous topics:** • Working with decimals links to rounding in place value. • Work on fractions requires the use of HCF and LCM from Types of Numbers.	**Links with previous topics:** • Geometry looks at 2D shapes using knowledge of properties covered in year 6. • Angle facts require knowledge of the 4 operations and inverse operations covered within the Addition and Subtraction unit of work. • 4 operations are required to work out averages.	**Links with previous topics:** • The unit on Sequences requires students to apply their knowledge of basic algebra. • Ratio and proportion builds on the fractions unit from term 3. We look at the links between ratio and fraction. • Ratio and proportion also require students to use their knowledge of the 4 operations.	**Links with previous topics:** • Construction and scale drawing requires the use of a protractor which is covered in the Angle unit of work. • The unit on Equations requires students to apply their knowledge of basic algebra.
8	**Curriculum Topics:** • Fractions • Percentages • Decimals	**Curriculum Topics:** • Geometry 1 (perimeter and area) • Geometry 2 (circles and Pythagoras)	**Curriculum Topics:** • Indices and standard form • Co-ordinates and Linear Graphs	**Curriculum Topics:** • Algebra 2 (formulae and inequalities) • Statistics	**Curriculum Topics:** • Geometry 3 (volume) • Geometry 4 (Transformations)	**Curriculum Topics:** • Probability • Compound measures

		• Algebra 1 (manipulation and equations)	• Ratio and Proportion			
	Links with previous topics: • Consolidation and extension of fractions, decimals and percentages from year 7	**Links with previous topics:** • Skills from decimals unit applied to problems involving powers and area. Year 7 unit on geometry extended. • Consolidation and extension of basic algebra and equations unit in year 7	**Links with previous topics:** • Ratio and proportion uses skills from the term 1 unit of fractions. It also re-caps and builds on work completed in the year 7 unit of work on Ratio and Proportion. • Indices and standard form is linked to the Y7 topic on powers in types of number. It also links to multiplying and dividing by powers of 10 in the multiplication and division unit of work.	**Links with previous topics:** • Algebra 2 builds on work completed in algebra 1 and also applies knowledge of 4 operations from year 7. • Algebra 2 also builds on inverse operations as taught in the year 7 Addition and Subtraction unit. • The unit on Statistics consolidates and extends the Statistics unit from year 7. It also looks at drawing graphs using skills learnt in the co-ordinate unit of work.	**Links with previous topics:** • The unit on volume requires knowledge of area seen in Geometry 1 in year 8. Knowledge of 3D shapes builds on knowledge of 2D shapes as seen in Geometry1. • Knowledge of transformations requires understanding of co-ordinates as covered in Co-ordinates and linear graphs.	**Links with previous topics:** • Probability applies skills covered in fractions and decimals from term 1. • Compound measures requires a good understanding of decimals as seen in term 1. It also uses the skills found in using and rearranging formulae which is covered in Algebra 2.
9	**Curriculum Topics:** • Basic Number • Angles and Scale Diagrams • Algebra consolidation and extension	**Curriculum Topics:** • Basic Decimals • Linear Graphs • Basic percentages	**Curriculum Topics:** • Rounding • Representing Data • Perimeter and area •	**Curriculum Topics:** • Sequences • Circles	**Curriculum Topics:** • Statistical Measures • Pythagoras and Trigonometry • Ratio and Proportion	**Curriculum Topics:** • Equations • Real life graphs

	Links with previous topics: • Consolidation and extension of work completed in Y7 and Y8 on types of numbers, geometry (Y7) and algebra (Y8) • Basic algebra skills covered in Y8 Algebra 1 are re-capped and extended to look at quadratic expressions.	**Links with previous topics:** • Consolidation and extension of work completed in Y8 on decimals and linear graphs • Both fractions and percentages consolidate and build on units from Y8.	**Links with previous topics:** • Representing data builds on the Y8 statistics unit •	**Links with previous topics:** • Sequences unit builds on Y8 sequences work and also uses skills covered in the Basic Algebra unit. • Work on circles uses skills covered in Geometry 2 in year 8. It also requires knowledge of formulae covered in the Y8 Algebra 2 unit of work.	**Links with previous topics:** • Statistical measures builds on skills covered in Y8 statistics (knowledge of averages) • Ratio and Proportion consolidates and extends Y8 work on ratio.	**Links with previous topics:** • Equations unit builds on Y8 sequences work and also uses skills covered in the Basic Algebra unit. • Real life graph applies skills learnt in the Linear Graphs unit of work.
10 F	**Curriculum Topics:** • Number re-cap and consolidation • Equations • Calculating with percentages	**Curriculum Topics:** • Measures • Statistical Measures • Rounding	**Curriculum Topics:** • Indices • Constructions • Transformations	**Curriculum Topics:** Congruence and Similarity Trigonometry Standard Form Area and Perimeter	**Curriculum Topics:** • Algebra • Circles • Simultaneous equations	**Curriculum Topics:** • **Angles and Polygons** • Further probability • Volume
	Links with previous topics: • Re-cap and extension of work on fractions and decimals from Y9 • Re-cap and extension of Y9 equations • Extension of Y9 percentages (applying basic skills)	**Links with previous topics:** • The Measures unit applies prior learning on formulae (Y9) • Statistical measures applied the skills learnt in the Y9 unit on Statistical Measures. • Rounding covers upper and lower	**Links with previous topics:** • Indices extends the Y8 topic on indices and uses knowledge of standard form from Y9. • Constructions follows on from protractor and compass skills taught in the Y8	**Links with previous topics:** • Extension of Y9 perimeter and area unit. • Congruence and similarity uses skills from the proportion topic in Y9. • Trigonometry uses knowledge of types of triangles that is covered in the Y9 Autumn Term.	**Links with previous topics:** • Skills covered in the Equations unit are applied to simultaneous equations. • Extension of Y9 unit on circles. • Re-cap and extension of Y9 algebra topic	**Links with previous topics:** • Properties of polygons builds on angle work completed in Y9 term 1 • Probability unit extends on work completed in year 8 on representing

		bounds and uses skills on decimal places and significant figures covered in year 9 rounding.	constructions unit.	• Standard form re-caps knowledge from Y8 on standard form and then applies this to problem solving.		sets and basic probability. • The unit on volume requires students to apply their knowledge of area.
10 H	**Curriculum Topics:** • Indices and Standard Form • Algebra Re-cap and Extension • Equations	**Curriculum Topics:** • Surds • Pythagoras and trigonometry	**Curriculum Topics:** • Statistical Measures • Construction and Loci • Percentages Extension	**Curriculum Topics:** • Congruence and similarity • Simultaneous equations • Transformations	**Curriculum Topics:** • Probability • Area Re-cap • Volume	**Curriculum Topics:** • Further equations and their graphs • Sine and Cosine Rule
	Links with previous topics: • Indices extends the Y8 topic on indices and uses knowledge of standard form from Y9. • Algebra Quadratics unit extends basic algebra skills in year 9 to quadratic and cubic expressions • Extension of year 9 equations	**Links with previous topics:** • Surds builds on the indices work. • Pythagoras and trigonometry builds on the unit of work covered in year 9 summer term. It is extended to look at 3D Pythagoras and trigonometry and exact values for key angles.	**Links with previous topics:** • Re-cap and extension of Y9 percentages topic (applying skills to financial calculations) • Constructions follows on from protractor and compass skills taught in the Y8 constructions unit. • Statistical measures applied the skills learnt in the Y9 unit on Statistical Measures. Work on averages is extended to	**Links with previous topics:** • Skills covered in the Equations unit are applied to simultaneous equations. • Congruence and similarity uses skills from the proportion topic in Y9. • Transformations unit extends the year 8 unit of work on transformations to look at combinations of transformations, negative enlargement and invariance.	**Links with previous topics:** • The unit on volume requires students to apply knowledge of area. • Further Probability builds on the Basic Probability unit from Y9	**Links with previous topics:** • Quadratic equations involves the application of skills learnt in the quadratics unit in term 1 • The Sine and Cosine rule uses skills learnt in the Autumn term from trigonometry

			include quartiles.			
11 F	**Curriculum Topics:** • Scatter Graphs • Algebra • Direct and Inverse Proportion	**Curriculum Topics:** • Equation Re-cap • Inequalities • Quadratics and graphs	**Curriculum Topics:** • Growth and decay • Vectors	**Curriculum Topics:** **Revision for GCSE**	**Curriculum Topics:** **Revision for GCSE**	**Curriculum Topics:** **Revision for GCSE**
	Links with previous topics: • Scatter graphs requires students to be able to plot co-ordinates as covered in Y9 linear graphs. • Algebra extends algebra skills to quadratic expressions • Direct and inverse proportion extends previous learning from Y10 on proportion	**Links with previous topics:** • Sketching graphs requires an understanding of linear graphs from Y10 and quadratics in term 1. • Quadratic equations involves the application of skills learnt in the year 10 algebra unit. • Inequalities uses skills from equations unit previously and also follows on from inequalities taught back in year 8.	**Links with previous topics:** • Growth and decay applies knowledge from the percentages unit • Vectors links to transformations in Y10	**Links with previous topics:**	**Links with previous topics:**	**Links with previous topics:**
11	**Curriculum Topics:** • Direct and Inverse Proportion • Functions and Proof	**Curriculum Topics:** • Sketching Graphs • Equation of a circle • Inequalities	**Curriculum Topics:** • Algebraic Fractions • Transforming Functions	**Curriculum Topics:** • Numerical Methods • Vectors • Circle Theorems • Growth and Decay	**Curriculum Topics:** **Revision for GCSE**	**Curriculum Topics:** **Revision for GCSE**

H	• Simultaneous equations		• Gradients and Area under a curve			
	Links with previous topics: • Direct and inverse proportion extends previous learning from Y10 on proportion • Functions and proof uses algebraic skills taught in years 9 and 10. • Simultaneous equations extends the work done on solving quadratic equations in year 10.	**Links with previous topics:** • Equation of a circle applies and extends understanding of linear graphs • Sketching graphs extends knowledge of ;Further Equations and their graphs' from year 10. • Inequalities uses skills from linear and quadratic graphs as well as skills taught on inequalities in Y10.	**Links with previous topics:** • Algebraic fractions uses skills from fractions and from algebra topics • Transforming functions combines transformations and sketching graphs. • Area under a curve links to gradient and requires understanding of area of 2D shapes.	**Links with previous topics:** • Numerical methods links to iteration in sequences • Growth and decay applies knowledge from percentages unit • Gradients and rates of change apply skills from linear graphs. • Vectors links to transformations in Y10 • Circle Theorems applies knowledge of circles seen in year 9 and also knowledge of angle facts from year 9.	**Links with previous topics:**	**Links with previous topics:**