Curriculum Map

THE WENSLEYDALE SCHOOL & SIXTH FORM
LEYBURN

Subject: Mathematics

Key Stage 3:		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Unit(s):	Numbers and the number system, factors, multiples, sequences, perimeter and area.	Negative numbers, averages, equivalent fractions, algebraic expressions	Angles, decimal numbers, linear graphs.	Percentages, 3D shapes, introduction to probability.	Ratios, proportion and change. Symmetry, solving equations.	Using data, pencil and paper calculations. Transformations, working with numbers.
	Key Assessment	Numbers	Fractions	Decimal numbers	Percentages	Algebra	End of year exam
	Enrichment and development: Consolidation on KS2 number work through problem solving. Introduction to generalising with algebra. Ensure that applied Mathematics that is not covered in KS2 has been introduced. To foster a love of problem solving to become a resilient learner. To be able to operate a scientific calculator.						
Year 8	Unit(s):	Percentage changes, graphs, correlation, congruence and scaling.	Algebraic expressions, fractions, circles and finding probabilities.	Equations, formulae, proportion, application of graphs, comparing sets of data.	Percentage changes, polygons, expressions and equations.	Prisms, cylinders, compound units, solving equations graphically. Pythagoras theorem.	Decimals, algebra, trigonometric ratios.
	Key assessment	Percentages	Circles	Algebra 2	Polygons	Solving equations	End of year exam.
	Enrichment and development: Ensure that all students are familiar with Mathematical language. Develop algebra as a skill set. To use different mathematics skills across other strands in the curriculum. To develop a sequential process to problem solving. To ensure that all students have been allocated a tier that will both challenge them and ensure that they reach their potential						
Year 9 Higher	Unit(s)	Numbers, fractions, ratio, proportion	Statistics, numbers and sequences, ratio and proportion.	Ratio and proportion, angles.	Transformations, constructions and loci. Algebraic manipulation.	Length, area and volume.	Linear graphs, right-angled triangles.
	Key Assessment	Numbers	Statistics	Ratio and proportion	Transformations	Area and volume	End of year exam
	Enrichment and development: • To be fluent in Mathematical language. • To introduce more advanced number systems. • To be able to use more advanced functions of a scientific calculator. • To begin to cover new GCSE concepts at an appropriate level. • To regularly access GCSE level problem solving questions..						

Year 9 Foundation	Unit(s)	Basic numbers, geometry and measures.	Statistics including averages, angles and numbers.	Numbers, approximation, decimals and fractions.	Further decimals and fractions. Algebra including linear graphs.	Algebra including expressions and formulae.	Further algebra. Ratio and proportion
	Key Assessment	Numbers	Statistics	Decimals and fractions	Algebra 1	Algebra 2	End of year exam
	Enrichment and development: • To be fluent in Mathematical language. • To consolidate Fractions, Decimals and Percentages within other topics. • To be able to use a scientific calculator efficiently. • To begin to cover new GCSE concepts at an appropriate level. • To regularly access GCSE level problem solving questions.						

Subject: Mathematics - (Pearson Edexcel GCSE Foundation & Higher)

Key Stage 4:		**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 10 Foundation	Unit(s):	Geometry and measures: perimeter, area, transformations.	Transformations, probability, volumes and surface areas of prisms.	Volumes and surface areas of prisms, algebra including linear equations.	Algebra: solving equations with brackets and variables on both sides. Ratio and proportion. Percentages.	Ratio and proportion. Percentages and variation.	Statistics, geometry and measure including constructions and loci.
	Key Assessment	Geometry	Probability	Volume and area	Algebra		
	Enrichment and development: Cover the majority of the GCSE specification. • To be able to communicate their reasoning process to their peers using Mathematical language. • To become a more reflective learner in Mathematics. • To understand the different revision techniques required at GCSE.						
Year 10 Higher	Unit(s):	Similarity, applying probability, powers and standard form.	Powers and standard form. Equations and inequalities.	Equations and inequalities.	Counting, accuracy and surds.	Quadratic equations including solving, the quadratic formula and completing the square.	Quadratic equations further including graphing, solving with linear equations.

	Key Assessment	Similarity	Indices	Algebra	Surds	Quadratic equations	End of year exam.
	Enrichment and development: • Cover the majority of the GCSE specification. • To be able to communicate their reasoning process to their peers using Mathematical language. • To become a more reflective learner in Mathematics. • To understand the different revision techniques required at GCSE.						
Year 11 **Foundation**	Unit(s):	2D geometry. Algebra including numbers and sequences.	Geometry, right angled triangles and trigonometry.	Congruency and similarity. Probability including combined events, tree diagrams.	Powers and standard form.Simultaneous equations and linear inequalities..	Further simultaneous equations, linear inequalities. Non-linear graphs.	Revision
	Key Assessment	Algebra	Trigonometry	Mocks	Past papers	Past papers	**GCSE**
	Enrichment and development: • To complete the GCSE specification. • To show resilience to all aspects of Mathematics. • To use and act upon feedback from full mock examinations.						
Year 11 **Higher**		Statistics including collecting data and complex diagrams. Probability.	Circle theorems, variation.	Triangles including 2D/3D problems, trig ratios, solving non-right angled triangles.	Graphs and rates of change.Algebraic fractions and functions.	Further algebraic fractions, vector geometry.	Revision Past Papers
	Key Assessment	Statistics	Circle theorems	Mocks	Past papers	Past papers	GCSE
	Enrichment and development: • To complete the GCSE specification. • To show resilience to all aspects of Mathematics. • To use and act upon feedback from full mock examinations.						

End of course external assessment:

Foundation

3 papers of 1hr and 30 minutes each worth one third each. Total 240 marks.

Higher

3 papers of 1hr and 30 minutes each worth one third each. Total 240 marks.

Subject: A level - Level 3 Mathematics - (AQA) (1350)

Key Stage 5:		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12		Students will be expected to develop and demonstrate confidence and competence in the understanding and application of statistical techniques.	Interpreting data and drawing conclusions in the solution of problems.	Students will be expected to develop and demonstrate confidence and competence in the understanding of the following calculations in the solution of problems relating to personal finance.	Students will be expected to develop and demonstrate confidence and competence in the application of the following calculations in the solution of problems relating to personal finance.	Students should become familiar with and gain confidence in ideas concerning the formulation of mathematical models	Consolidation of Units 1-3. Practice Papers - Paper 1.
		Analysis of Data	Analysis of Data/Maths for Personal Finance	Maths for Personal Finance	Maths for Personal Finance	Estimation	End of year exam
	Enrichment and development: • To complete the AQA specification including the compulsory Units 1,2 and 3. To show resilience to all aspects of Mathematics. • To use and act upon feedback from full mock examinations.						
Year 13		Students will be expected to use the data and models they are given and to be mathematically critical of these.	Critical analysis of given data and models including spreadsheets and tabular data • statistical techniques.	Critical analysis of given data and models including spreadsheets and tabular data • critical path and risk analysis.	Critical analysis of given data and models including spreadsheets and tabular data/graphical techniques.	Consolidation work and Revision	AQA Exams Paper 1 and either: 2, 3 or 4.
		Critical Analysis	Option 1	Option 2	Option 3	Past Papers	AS Maths
	Enrichment and development: • To complete the AQA specification. • To show resilience to all aspects of Mathematics. • To use and act upon feedback from full mock examinations.