

OAW Maths Curriculum

Using a mastery approach our aim is for all students to develop long-term knowledge with a deep understanding in order to be successful at GCSE level and beyond – allowing them access to the complex mathematical world in which we live. A planned series of lessons will interleave, ensuring students recall knowledge from previous lessons and topics in order to build and retain knowledge.

Throughout all years students

- study topics at length in order to gain a deep understanding of mathematical thinking
- develop an understanding of the concrete, pictorial, abstract approach
- gain confidence in order to reason and problem solve
- are shown links between topics in order to develop fluency
- build the correct knowledge in order for them to be successful at GCSE
- enhance their vocabulary in order to communicate mathematical ideas effectively

KS3 Overview Y7-9

Year 7 are following the new updated 5-year plan from Mathematics Mastery. Students entering the academy from September 2019 will follow this SOW.

Years 8 and 9 follow the legacy SOW from Mathematics Mastery

	Year 7 New		Year 8 Legacy		Year 9 Legacy
A1	1 Numbers and numerals 2 Axioms and arrays 3 Factors and multiples 4 order of operation	A1	1 Prime numbers and factorisation 2 Calculating with fractions	A1	1 Coordinates 2 Linear graphs 3 Direct and inverse proportion 4 Standard form and scales
A2	5 Positive and negative numbers 6 Equations, expressions and inequalities	A2	3 Positive and negative numbers 4 Sequences, expressions and equations	A2	5 Sequences 6 Expanding and factorising 7 Changing the subject
S1	7 Angles 8 Classifying shapes 9 Constructing triangles and quadrilaterals	S1	5 Constructing triangles and quadrilaterals and properties of angles in parallel lines 6 Length and area	S1	8 Constructions 9 Congruence 10 Pythagoras' theorem 11 Angles in polygons

S2	10 Coordinates 11 Area of 2D shapes 12 Transforming 2-D shapes	S2	7 Percentage change 8 Ratio and rate	S2	12 linear equations and inequalities 13 Graphical solutions
S1	13 Prime factor decomposition 14 Conceptualising and comparing fractions 15 Manipulating and calculating with fractions	S1	9 Rounding and accuracy 10 Circumference and area of a circle 11 3D shapes and nets 12 Surface area and volume of 3D shapes	S1	14 Probability 15 Working with data 16 Scatter graphs
S2	16 Ratio 17 Percentages	S2	13 Statistics	S2	17 Enlargement and similarity 18 Transformations 19 Trigonometry

KS4 Overview

2018-19 year 9 followed AQA SOW, now in year 10 they are finishing that SOW

	Year 10 AQA			Year 11	
	Foundation	Higher		Foundation	Higher
A1	Volume Quadratics Rearranging formulae Inequalities	Volume Quadratics Rearranging formulae Inequalities Numerical methods Equation of a circle	A1	Units of measure and Indices. Trigonometry Calculator/Financial Further algebra and Quadratics Growth and Decay	Direct and inverse proportion Upper and lower bounds Algebraic proofs and fractions Functions/transforming functions Gradients and rate of change Iteration
A2	Pythagoras Simultaneous equation Graphs	Further equations Graphs Simultaneous equations Sketching graphs	A2	Cones, spheres and Vectors Gradients and rate of change	Calculator/Financial maths Circle theorems Pre-calculus Area under a curve
S1	Sketching graphs Proportion	Proportion Inequalities	S1	Bespoke SOW/Revision	

	Trigonometry Solving quadratics	Pythagoras		
S2	Solving quadratics Quadratics graphs	Trigonometry Growth and decay Vectors	S2	Bespoke SOW/Revision
S1	Circles – circumference, area Indices Transformations	Transforming functions Sine and cosine rule Probability	S1	Bespoke SOW/Revision
S2	Averages Averages from a table Reverse mean Probabilities Inc. trees and Venn	Circle theorems Gradients and rates of change Area under a curve Algebraic fractions	S2	