ALBANY ACADEMY: KS4 Maths Subject Overview

Curriculum Overview for Mathematics					
Autumn Term					
UNIT	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
TITLE	Number - Calculation	Number - Fractions	Number	Shape	Ratio
CONTENT	HC & LCF Powers & Roots BIDMAS FDP Conversions	Fraction of an amount Converting between mixed fractions Add and subtract simple fractions	Rounding Rounding to significant figures Estimations Percentage Increase & Decrease	Perimeter Area of rectangles & triangles Parallelogram & trapezium Compound shapes Functional skills	Simplifying Sharing with a ratio Values Recipes Best Value Exchange Rates
	Order of operations, converting between fractions, decimals and percentages	Four operations, calculator use, writing fractions accurately, laying out of calculations. Times tables woven throughout	Four operations, calculator use, writing fractions accurately, laying out of calculations. Times tables woven throughout	Using correct formulae to calculate area and perimeter · Measuring accurately · Drawing shapes using a ruler accurately · Correct use of units · Understand the nature of shapes	Recognising that ratio is part of the whole. · Dividing skills · Using correct notation "a:b" · Link to everyday use of Maths

Spring Term					
UNIT	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
TITLE	Algebra - Solving	Data	Data 2	Shape 2	Probability
CONTENT	Collecting like terms Expanding brackets Expanding two brackets Factorising Solving two, three and four term equations	Pictograms Pie Charts Stem & Leaf Averages Scatter Diagrams	Percentage change Finding a percentage Finding the original	Area of a circle Circumference Volume of cuboid, triangular prisms, composite shapes	Simple probability Relative frequency
	Recognise that letters can represent an unknown value. · Apply formulae · Recognise that information can be represented in different forms	Represent and analyse data accurately · Organise information clearly using a standardised format · Use averages to describe relationships between data sets · Know that the range is not an average, but shows a spread of data · Know how to calculate mean, median, mode.	Recognise % symbol · Setting out calculations clearly to demonstrate working out · Being able to do the calculation in reverse to check accuracy	Measure accurately using a ruler and protractor · Use a compass correctly · Draw shapes accurately using ruler and protractor · Use multiplication and division to accurately portray enlargement.	Be able to use the appropriate vocabulary confidently · Be able to identify how best to present information · Be able to read and interpret diagrams presented in a variety of ways · Accurately identify "Impossible, evens, certain" events

Summer Term					
UNIT	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15
TITLE	Data 3	Vectors	Nth term	Pythagoras	Solving
CONTENT	Independent tree diagrams	Rotation Translation	Finding the nth term Missing angles	Pythagoras theorem Trigonometry	Solving three term equations

	Dependent tree diagrams Venn Diagrams	Reflection Enlargement	Angles along parallel lines Angles within polygons Bearings	Finding missing lengths Finding missing angles	Expression & equations Linear graphs
	Be able to use the appropriate vocabulary confidently · Be able to identify how best to present information · Be able to read and interpret diagrams presented in a variety of ways · Accurately identify "Impossible, evens, certain" events		Types of sequence · Finding the nth term rule · Using the nth term rule	Measure accurately using a ruler and protractor · Use a compass correctly · Draw shapes accurately using ruler and protractor · Use multiplication and division to accurately portray enlargement.	