Key Stage 4 Maths Curriculum Overview

- The KS4 Maths Curriculum is taught through the 'Pearson Edexcel GCSE (9-1) Mathematics' *[Pearson publications]*. The programme incorporates textbook activities, digital resources, and practical problem-solving activities to meet the requirements to prepare pupils for pathways to Entry Level, Functional Skills and GCSE Qualifications.
- The Entry level programme may begin in yr9 for pupils who are ready to begin their qualification journey. It will also be delivered to KS4 pupils who have not had the opportunity to complete a full KS3 programme (due to joining the school after a prolonged period of absence from previous schooling).
- The Maths Curriculum is structured to provide the skills needed for the Entry Levels and Functionals skills qualifications which are taught alongside the GCSE programme to provide a progressive pathway to the most suitable qualification for each individual student.

Entry Level 1						
Year/Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
EL1	Read write order and compare numbers up to 20 Use whole numbers to count up to 20 items, including zero Add numbers which total up to 20 and subtract numbers from numbers up to 20 Recognise and interpret the symbols +, - and = appropriately	Recognise coins and notes and write them in numbers with the correct symbols (£ &p), where these involve numbers up to 20 Read 12-hours digital and analogue clocks	Know the number s of days in a week, months and seasons in a year and be able to name them in sequence Describe and make comparisons in words between measures of items including size, length, width, height, weight and capacity Use everyday positional vocabulary to describe position and direction including left, right, in front, behind, under and above.	Read numerical information from lists Sort and classify objects using a single criteria	Read and draw simple charts and diagrams including a tally chart, block diagram/graph	Practice and final exams

Entry Level 2						
Year/Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
EL2	Count reliably up to 100 items Read write order and compare numbers up to 200 Recognise and sequence odd and even numbers up to 100 Recognise and interpret the + - X ÷ and = appropriately Add and subtract two digit numbers Multiply whole numbers in the range 0x0 to 12x12	Know the number of hours in a day and weeks in a year; be able to name and sequence Divide two-digit whole numbers by single-digit whole numbers and express remainders Approximate by rounding to the nearest 10, and use this rounded answer to check results Recognise simple fractions (halves, quarters and tenths) of whole numbers and shapes Read,write and use decimals to one decimal place	Calculate money with pence up to one3 pound and in whole pounds of multiple items and write with correct symbols (£ or p) Read and record time in common date formats and read time displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24 hour clock Use metric measures of length, including mm, cm, m and km Use metric measures of weight including g and kg Use metric units of capacity including ml and l	Read and compare positive temperatures Read and compare simple scales to the nearest labelled division Describe properties of common 2D and 3D shapes including number of sides, corners, edges, races, angles and base Use appropriate positional vocabulary to describe position and direction, including between, inside, outside, middle, below, on top, forwards and backwards.	Extract information from lists, tables, diagrams and bar charts Make numerical comparisons from bar charts Sort and classify objects using two criteria Take information from one format and represent the information in another format, including use of bar charts.	Practice and final exams

Entry Level 3						
Year/Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
EL3	Count, read write, order and compare numbers up to 1000 Add and subtract using three-digit whole numbers	Divide three-digit whole numbers by single and double-digit whole numbers	Multiply two-digit whole numbers by single and double-digit whole numbers Approximate by rounding numbers less than 1000 to the nearest 10 or 100	Recognise and continue linear sequences of numbers up to 100	Read, write and use decimals up to two decimal places Recognise and continue sequences that involve decimals	Practice and final exams

Foundation Maths						
Year/Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
GCSE yr1	**Unit 1:** (16 hours) **Number** **Unit 2:** (6 hours) **Algebra**	**Unit 2:** (5 hours) **Algebra**. **Unit 3:** (18 hours) **Graphs, tables and charts.**	**Unit 4:** (13 hours) **Fractions and percentages.** **Unit 5:**(9 hours) **Equations, inequalities and sequences.**	**Unit 5:** (5 hours) **Equations, inequalities and sequences.** **Unit 6:** (11 hours) **Angles,** **Unit 7:** (7 hours) **Averages and range**	**Unit 8: (10 hours) Perimeter, area and volume 1.** **Unit 9:** (8 hours) **Graphs**	**Unit 9:** (6 hours) **Graphs** **Unit 10:** (11 hours) **Transformations**
GCSE yr2	**Unit 11:** (9 hours) **Ratio and Proportion** **Unit 12:** (5 hours) **Right-angled triangles:**	**Unit 13:** (12 hours) **Probability** **Unit 14:** (7 hours) **Multiplication and reasoning**	**Unit 15:** (6 hours) **Constructions, loci and bearings.Unit 16:** (11 hours) **Quadratic equations and graphs.**	**Unit 18:** (10 Hours) **More fractions, indices and standard form.** **Unit 19:** (10 Hours)	**Unit 19:** (4 Hours) **Congruence, similarity and vectors.** **Unit 20:** (5 Hours)	**Practice Exams & Final Exams**

		Unit 15: (6 hours) **Constructions, loci and bearings.**	**Unit 17:** (6 hours) **Perimeter, area, volume 2:**	**Congruence, similarity and vectors.**	**More algebra** **Practice Exams**	

Functional skills Level 2						
Year/Term	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
level 2	**using numbers and the number system** Read, write, order and compare positive and negative numbers of any size Carry out calculations with numbers up to one million including strategies to check answers including estimation and approximation Evaluate expressions and make substitutions in given formulae in words and symbols Identify and know the equivalence between	**using numbers and the number system** Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers Express one number as a fraction of another Order, approximate and compare decimals Add, subtract, multiply and divide decimals up to three decimal places Understand and calculate using ratios,	**measures, shape and space** Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting Convert between metric and imperial units of length, weight and capacity using a) a conversion factor and b) a conversion graph Calculate using compound measures including speed, density and rates of pay	**measures, shape and space** Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements Use coordinates in 2-D, positive and negative, to specify the positions of points Understand and use common 2-D representations of 3-D objects Draw 3-D shapes to include plans and elevations Calculate values of angles and/or	**handling information and data** Calculate the median and mode of a set of quantities Estimate the mean of a grouped frequency distribution from discrete data Use the mean, median, mode and range to compare two sets of data Work out the probability of combined events including the use of diagrams and tables, including two-way tables	Practice and final exams

	fractions, decimals and percentages Work out percentages of amounts and express one amount as a percentage of another Calculate percentage change (any size increase and decrease), and original value after percentage change	direct proportion and inverse proportion Follow the order of precedence of operators, including indices	Calculate perimeters and areas of 2-D shapes including triangles and circles and composite shapes including non-rectangular shapes (formulae given except for triangles and circles) Use formulae to find volumes and surface areas of 3-D shapes including cylinders (formulae to be given for 3-D shapes other than cylinders)	coordinates with 2-D and 3-D shapes	Express probabilities as fractions, decimals and percentages Draw and interpret scatter diagrams and recognise positive and negative correlation	