Maths Curriculum

Rationale for topic choices in each year group:

Pupils receive 5 hours of maths teaching every week. Years 10 and 11 are taught separately in mixed ability groups. In Key stage 4 pupils follow the Scheme of Work for AQA GCSE Mathematics (8300). Some pupils are entered separately for an Entry Level Certificate in Mathematics (5930). The teacher is a subject specialist and a GCSE examiner.

Long Term Plan:

Year group	Autumn term	Spring term	Summer term	Schemes of work and further information	How are pupils assessed?
10	Number- Factors and multiples Fractions Decimals Roundings Percentages Geometry- Angles Bearings Perimeter and area Algebra- Coordinates and linear graphs Basic algebra Sequences Handing Data- Data Handling Cycle Collection of data	Number- Ratio and proportion Indices Geometry- Area and circumference of a circle Properties of polygons and circles Algebra- Equations Handing Data- Real life graphs Distance-time graphs	Number- Calculating with fractions, decimals and percentages Geometry- Transformations Congruence and similarity 2D representations of 3D shapes Measures Algebra- Linear graphs Handing Data- Statistical measures	http://www.aqa.org.uk/subjects/mathematics/gcse/mathematics-8300 http://www.aqa.org.uk/subjects/mathematics/elc/mathematics-5930 https://www.gov.uk/government/publications/gcse-mathematics-subject-content-and-assessment-objectives	Pupils work is assessed against 3 assessment objectives (AO). This will show progression. The grading system of 1-5 reflects GCSE grades in terms of knowledge acquisition and skills. Some pupils will not be working at level 1. Therefore they will be assessed against 'entry level' accreditation criteria. Please refer to AO and grading framework in the chart below.

| 11 | Number-
Negative numbers
Fractions, decimals and percentages
Estimation with rounding
Conversions and exchange rates
Prime factorisation

Geometry-
Angle rules, triangles, interior and exterior angles
2d and 3d shapes, Symmetry
Properties of circles
Pythagoras Theorem
Area and Volume
Similar and congruent shapes
Perimeter and scale

Algebra-
Sequences and nth term
Basic algebra

Handing Data-
Averages
Charts and graphs | Number-
Indices
Standard form

Geometry-
Trigonometry
Bearings
Area and circumference of a circle
Transformations
Surface area
Areas of compound shapes
Loci and constructions
Volume of a prism

Algebra-
Inequalities

Handing Data-
Distance-time graphs
Scatter graphs
Venn Diagrams
Probability and frequency density | Number-
Percentages including simple and compound interest
Growth and decay

Geometry-

Algebra- Expanding and factorising expressions

Handing Data-
Systematic listing
Histograms
Averages from frequency tables

Revision and summer examinations | | |

Grade	A01 Use and Apply Standard Techniques (50% weighting)	A02 Reason, interpret and communicate mathematically (25% weighting)	A03 Solve problems within mathematics and in other contexts (25% weighting)
W	accurately recall facts, terminology and definitions use and interpret notation correctly	draw conclusions from mathematical information construct chains of reasoning	translate problems in non-mathematical contexts into a process or series of processes
1	accurately recall facts, terminology and definitions use and interpret notation correctly		
2	accurately carry out routine procedures or set tasks requiring multi-step solutions.	make deductions, inferences and draw conclusions from mathematical information	translate problems in mathematical or non-mathematical contexts into a process or a series of mathematical processes
3		construct chains of reasoning to achieve a given result	make and use connections between different parts of mathematics
4		interpret and communicate information accurately present arguments and proofs	interpret results in the context of the given problem evaluate methods used and results obtained
5		assess the validity of an argument and critically evaluate a given way of presenting information	evaluate solutions to identify how they may have been affected by assumptions made.