



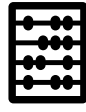
**Beyond GCSE**  
You will employ your maths knowledge throughout life. A-Level maths awaits those who want to develop further.

**Non-Linear graphs**  
Plotting and solving

**Powers**  
Standard form and laws of powers

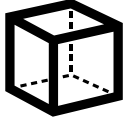
**Congruency and similarity**  
Triangles and other shapes

**Algebraic fractions and functions**  
Solving fractions and functions including composite



**Vector geometry**  
Vector notations and problems

**Triangles**  
Sine and Cosine rule, area of a triangle as well as 3D problem solving



**Right angle triangles**  
Pythagoras and trigonometry

**Graphs**  
Distance-time and velocity-time graphs. Rates of change, circles and transformations

**Simultaneous equations**  
Non-linear equations via substitution methods



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HIGHER FOUNDATION

**Right angle triangles**  
Pythagoras and trigonometry

**Circle Theorems**  
Rules including tangents, chords and cyclic quadrilaterals

**Quadratic equations**  
Solving via graphs, completing the square, quadratic formula and factorisation

**Probability**  
Calculating, experimental and combined events

**Sequences**  
Nth term linear and special sequences



**Simultaneous equations**  
Elimination and substitution method

**Curved shapes and pyramids**  
Calculating volume and surface area



**Area, perimeter and translations**  
Basic and more advanced shapes, including compound shapes and circles

**Percentages**  
Increase, percentage change as well as compound measure

**Construction**  
Angle and line bisects, Loci

**Linear Graphs**  
Finding equations of lines, plotting and solving simultaneous equations

**Direct and Inverse proportion**  
Problem solving around ratio

**Powers**  
Standard form and laws of powers

**Area and volume**  
2D and 3D shapes as well as similarity

**Algebra**  
Solving linear, simultaneous and inequality equations

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**Number**  
Rounding, powers, special numbers and surds

**Number**  
Decimals, factors and sequences

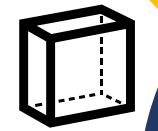
**Angles and transformations**  
Angle problems as well as movements in shape

**Fractions, decimal and ratio**  
Proportion questions and conversions

**Statistics**  
Representation and measure

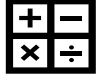
**Comparing data**  
The use of averages and how to present the data

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**Circles**  
Area and circumference of a circle

**Proportion**  
Work with direct and inverse proportion



**Algebra**  
Solving equations with brackets as well as variables on both sides. Also, the manipulation of formulae

**Fractions and Decimals**  
Operations with fractions. Multiplication/Division with large and small numbers

**Data**  
Interpreting data with Pie charts and scatter graphs. Comparing data through frequency tables and averages.

**Working with Numbers**  
Operations with negatives, HCF/LCM using prime factors. Understanding powers and roots.



**Algebra Manipulation**  
Expansion and factorisation

**Algebra**  
Solving equations with brackets as well as variables on both sides. Also, the manipulation of formulae

**Graphs**  
Understanding  $y=mx+c$  through work with gradient and intercepts. Plotting straight line graphs

**Sequences**  
Use of flow diagrams leading into nth terms and special sequences

**Shape**  
Area of special quadrilaterals. Work with circles, including notation

**Probability**  
Understanding probability scales and mutually exclusive events. Use of sample space diagrams and experimental probability

**Geometry**  
Angles in Parallel lines and properties of quadrilaterals. Also, transformations including translation and rotation.

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**Fractions**  
Adding/Subtracting fractions. Simplifying and comparing equivalent fractions.



**Angles**  
Measuring, drawing Angles. Calculating angles, including triangles and quadrilaterals

**Coordinates and Graphs**  
Coordinates, naming and mapping graphs. Use of real-world graphs

**Percentages**  
Fractions to percentages. Calculating percentages, including increase/decrease

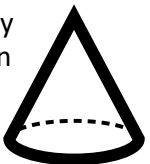
**Probability**  
Probability words and scales. Use of experimental probability

**Ratio**  
Introduction to ratio. Simplifying ratios, sharing and converting to fractions



**Algebra**  
Expressions, substitution and simplifying. Use of formulae and solving equations.

**Statistics**  
Mean, Median, Mode. Using tally charts, grouped frequency and data collection



**Working with Numbers**  
Long and short multiplication, BIDMAS and the using decimals

**Shape**  
Perimeter, Area and Volume of 2-D and 3-D shapes



**Sequences**  
Using function machines, rules of sequences and patterns in numbers

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**Primary School**

Teachers from the AGS Maths Department visit our feeder schools during the year and run a workshop on problem solving for Years 5 and 6. Pupils engage in a range of tasks aimed at building confidence in maths as well as having fun.