CURRICULUM AND ASSESSMENT PLAN

ORMISTON FORGE ACADEMY

MATHEMATICS

YEAR 10
FOUNDATION

CURRICULUM INTENT

The curriculum and assessment of students at this stage of education has been carefully designed to promote deep learning of mathematics and develop students into analytical and logical problem solvers.
Students in Year 10 will strengthen and consolidate their knowledge of number, ratio and proportion, algebra, geometry, and data. They will use and apply their understanding of the Big Ideas of mathematics which have been developed to improve the students' ability to retain information, develop their mathematical skills and apply their knowledge using a consistent range of methods and techniques. Students will be taught to link and interconnect the Big Ideas in a fluent way thus becoming familiar with them. The curriculum will ensure that students are able to solve multi-step problems and will ensure that all students have access to appropriate challenge. In addition to this, we aim to broaden students' perception of mathematics by providing the opportunity to explore how the skills they are developing can be used in real life situations. We believe that this exposure to the application of mathematics, in addition to their learning, will inspire them to be our next generation of mathematicians.

PRIOR LEARNING	We have carefully designed the curriculum so that students will review the topics taught during Year 9 with interleaving to support the recall and retention of previously learned content and build on this to prepare them for their GCSE examination in Year 11.
PERSONAL DEVELOPMENT & CURRICULUM LINKS	There are opportunities for links with science, technology, geography and PE. Consistent methods will be used across all departments to support students' understanding of mathematics.
EXTRA-CURRICULAR & CULTURAL CAPITAL	AMSP will be running support sessions, trips and competitions to widen student understanding of mathematics, particularly with real life scenarios and context. In addition to this, other trips and competitions will be run with a key focus on careers and potential jobs that involve mathematics. Homework support will be available from September. The aims of these are to support students with resources and projects that would normally be unavailable to them.

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPIC/KNOWLEDGE	**NUMBER** **All students will know:** Calculations with integers, fractions and decimals Powers and roots Rounding and estimation Index laws HCF & LCM Prime factor decomposition Calculations with negative numbers Order of operations Equivalent fractions Fraction of an amount	**ALGEBRA AND GEOMETRY** **All students will know:** Simplifying expressions Substitution Manipulating expressions Expanding and factorising single brackets Forming and solving simple equations Using a formula Changing the subject of a formula Drawing and measuring angles Construction Angle properties of lines, triangles and polygons Area of simple shapes including circles	**STATISTICS AND NUMBER** **All students will know:** Types of data and how it can be collected Stem and leaf diagrams Pie charts Mode, median, mean and range Averages from tables and graphs Scatter graphs and correlation Time series graphs Equivalent fractions, decimals and percentages Decimal multipliers Percentage of an amount Percentage increase and decrease	**NUMBER AND PROPORTINAL REASONING** **All students will know:** Fluent use of calculator to solve numerical problems Calculations involving time and timetables Rounding, truncation and error intervals Estimation Direct and inverse proportion Value for money Exchange rates Recipes Using decimal multipliers to increase and decrease an amount Calculating a percentage change	**GRAPHS AND ALGEBRA** **All students will know:** Coordinates in 4 quadrants Midpoint of a line Equations of horizontal and vertical lines Plotting linear and quadratic graphs Gradient and y intercept of linear graphs Finding missing terms in sequences Term to term rules Nth term rules Using picture sequences Linear inequalities and how they can be represented	**ALGEBRA AND DATA** **All students will know:** How to solve simple linear inequalities Congruent and similar shapes Transformations of shapes Calculating missing lengths on similar shapes Systematic listing, the language of probability and sample spaces Calculating probability Frequency tree diagrams Venn diagrams Ratio notation, equivalent ratio and calculating with ratio. Using ratio for scale drawings and maps
SKILLS	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, analysis of data, written and verbal communication, logical and accurate thinking and solutions. Application of topics to contextual problems.	Problem solving, analysis of data, written and verbal communication, logical and accurate thinking and solutions. Application of topics to contextual problems.
ASSESSMENT	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lessons and via homework set on Sparx Maths. Students will also sit a formal GCSE style assessment, which focusses on all the content from half term 1.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. Students will also sit a formal GCSE style assessment, that focusses on all the content from half term 1, 2 and 3.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. Students will sit a formal GCSE style during the half term which will consist of 2 papers. This will be used to support gap closure and intervention moving forward through Year 10 and into Year 11.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.
VOCAB	Multiply, divide, sum, product, difference, grid method, place value table, factor, multiple, prime number, integer,negative number, estimate, order of operations, simplifying, HCF, LCM, numerator, denominator, equivalent, common, improper fraction, mixed number	Simplify, solve, equation, balance method, factorise, expand, substitute, rearrange, formula, construct, bisect, acute, obtuse, reflex, right angle, parallel, perpendicular, opposite, straight line, equilateral, isosceles, scalene, quadrilateral, kite, trapezium, polygon, interior, exterior, radius, diameter, circumference	Discrete, continuous, primary, secondary, questionnaire, stem and leaf, key, pie chart, represent, mode, median, mean, range, frequency, positive, negative, correlation, strong, weak, time series, equivalent, original, increase, decrease	Round, decimal place, significant figure, estimate, approximate, truncate, error interval, exchange rate, proportion, direct, indirect, increase, decrease, multiplier, original	Coordinate, axis, horizontal, vertical, midpoint, linear, quadratic, parabola, vertex, gradient, intercept, parallel, term, sequence, difference, coefficient, geometric, Fibonacci, inequality, greater than, less than, number line,	Solve, congruent, similar, vector, translation, rotation, clockwise, anti-clockwise, centre, scale factor, enlargement, reflection, sample space, independent, dependent, probability conditional, tree diagrams, outcome, theoretical, experimental, relative frequency, fair, biased

READING SKILLS

In mathematics this year, decoding, fluency, vocabulary, prior knowledge, and summarising will support problem-solving, reasoning, and comprehension of mathematical language. This will enable students to interpret, apply, and communicate concepts effectively.

CAREERS LINKS

Acoustic specialist, actuary, chartered accountant, cryptographer, data scientist, economist, investment analyst, mathematician, medical statistician, meteorologist, operations research analyst, research scientist, risk management officer, software engineer, statistician, teacher or lecturer, technician

SUPPORTING STUDENTS AT HOME

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CURRICULUM AND ASSESSMENT PLAN

ORMISTON FORGE ACADEMY

MATHEMATICS

YEAR 10
HIGHER

CURRICULUM INTENT

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	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPIC/KNOWLEDGE	**ALGEBRA AND GEOMETRY** **All students will know:** Equations of linear graphs Parallel and perpendicular lines Solving simultaneous equations graphically and algebraically Representing solutions to linear inequalities in two variables on a Cartesian grid. Transformations Similarity Application of Pythagoras' Theorem Right angled trigonometry to calculate missing angles and lengths Area and arc length of circles and sectors Circle theorems	**NUMBER AND GEOMETRY** **All students will know:** Percentages; percentage change, reverse percentages, interest and depreciation Using numerical and algebraic methods to solve direct and inverse proportion problems Compound measures: speed, density and pressure Solving problems involving ratio Angle properties of regular and irregular polygons Angle properties of parallel lines Bearings Plans and Elevations Construction and loci	**STATISTICS AND NUMBER** **All students will know:** Averages from discrete and continuous data How to construct, interpret and compare box plots and cumulative frequency graphs Set notation How to solve probability problems using two way tables, Venn diagrams and set notation Understand and use the rules for independent and mutually exclusive events Prime factor decomposition HCF and LCM Converting between recurring decimals and fractions Rounding, truncation, error intervals, estimation and bounds Calculations with bounds	**ALGEBRA** **All students will know:** Rules of indices Expanding double and triple brackets Factorise and solve quadratics Rearranging formula Simplifying algebraic fractions	**ALGEBRA** **All students will know:** Quadratic graphs – plotting and identifying key points Using the quadratic formula to solve a quadratic Solving a quadratic by completing the square How to rearrange and solve a quadratic Linear sequences Non liner sequences including quadratic sequences, geometric sequences and Fibonacci sequences Recurrence relations	**ALGEBRA AND SHAPE** **All students will know:** Volumes and surface area of cubes, cuboids and prisms Volumes and surface area of pyramids and cones Volumes and surface area of spheres Volumes and surface area of composite solids 2D Pythagoras and trigonometry 3B Pythagoras and trigonometry Area of any triangle using 1/2abSinC Sine rule to calculate missing lengths and angles Cosine rule to calculate missing lengths and angles Area of a segment
SKILLS	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, analysis of data, written and verbal communication, logical and accurate thinking and solutions. Application of topics to contextual problems.	Problem solving, analysis of data, written and verbal communication, logical and accurate thinking and solutions. Application of topics to contextual problems.
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VOCAB	Quadrant, linear, gradient, y intercept, parallel, simultaneous, solution, substitute, inequality, region, Pythagoras, hypotenuse, opposite, adjacent, tangent, sine, cosine, inverse, sector, arc, chord, segment, alternate	Increase, decrease, compound interest, depreciation, direct, inverse, proportion, rate of change, density, pressure, speed, velocity, regular, irregular, interior, exterior, co interior, corresponding, alternate, loci,	Discrete, continuous, mean, median, mode, range, frequency, cumulative, quartile, interquartile range, outlier, box and whisker diagram, union, intersection, universal set, complement, independent,	Factorise, expand, rearrange, subject, formula, expression, equation, linear, quadratic, coefficient	Root, solution, minimum, maximum, turning point, y intercept, Linear, geometric, term to term, Fibonacci, nth term rule, first difference, second difference, common ratio, iteration, recurrence	Volume, surface area, cube, cuboid, prism, cylinder, radius, diameter, circumference, sector, cross section, sine, cosine, tangent, hypotenuse, opposite, adjacent, inverse, segment, chord.

READING SKILLS

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CURRICULUM AND ASSESSMENT PLAN

ORMISTON FORGE ACADEMY

MATHEMATICS

YEAR 10 CROSSOVER

CURRICULUM INTENT

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	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPIC/KNOWLEDGE	**NUMBER and ALGEBRA** **All students will know:** Calculations with integers, decimals and fractions Powers and roots Order of operations Index laws Percentages Rounding, error intervals and estimation. Simplifying algebraic expressions Expanding single brackets Factorising algebraic expressions Substitution Changing the subject of a formula Linear and quadratic graphs Sequences Solving equations and inequalities	**GEOMETRY and NUMBER** **All students will know:** Angle facts of shapes and parallel lines Internal and external angles of polygons Problem solving with angles Bearings Area and perimeter of shapes. Area and circumference of circles. Problem solving with area and perimeter. Direct and inverse proportion Value for money Recipes Exchange rates Percentage change Problem solving with ratio	**NUMBER and GRAPHS** **All students will know:** Converting large and small numbers to and from standard form Calculations with numbers given in standard form with and without a calculator Interpreting and drawing contextual graphs Converting between units of time Distance time graphs Velocity time graphs	**NUMBER and GEOMETRY** **All students will know:** Simple and compound interest Compound measures: working with density, pressure and speed Converting compound units Solving problems involving ratio Identifying congruent shapes Using vectors for translation of shapes Drawing and identifying reflections, rotations, translations and enlargement Similar shapes: identifying scale factors and finding the dimensions of similar shapes	**PROBABILITY** **All students will know:** Systematic listing The language of probability How to record, describe and analyse the frequency of outcomes for simple probability experiments Theoretical probability That the sum of probabilities for mutually exclusive events = 1 How to construct and use a sample space diagram How to construct and use frequency trees, two way tables and Venn diagrams to calculate probabilities	**ALGEBRA and GEOMETRY** **All students will know:** Properties of linear graphs Finding the equation of a line from a graph / given two points Identifying parallel lines from their equations Plotting straight line graphs Solving simultaneous equations graphically and algebraically Using Pythagoras' Theorem to calculate the lengths of unknown sides in a right angled triangle Using trigonometry to calculate missing lengths and angles in right angled triangles Mixed problems involving trigonometry and Pythagoras.
SKILLS	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, written and verbal communication, logical and accurate thinking and solutions. Application of topics to geometric and contextual problems.	Problem solving, analysis of data, written and verbal communication, logical and accurate thinking and solutions. Application of topics to contextual problems.	Problem solving, analysis of data, written and verbal communication, logical and accurate thinking and solutions. Application of topics to contextual problems.
ASSESSMENT	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lessons and via homework set on Sparx Maths. Students will also sit a formal GCSE style assessment, which focusses on all the content from half term 1.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. Students will also sit a formal GCSE style assessment, that focusses on all the content from half term 1, 2 and 3.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.	Students will sit a formal GCSE style during the half term which will consist of 2 papers. This will be used to support gap closure and intervention moving into Year 11. Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.	Students will complete low stake topic tests regularly to check retention and understanding of content taught. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.
VOCAB	Grid method, factorise, expand, place value table, factor, multiple, integer, round, estimate, order of operations, simplifying, balance method, simplify, substitute, solve, quadratic, linear, rearrange, unknown, gradient, intercept, geometric, Fibonacci, inequality	Acute, obtuse, reflex, right angle, parallel, perpendicular, opposite, bearing, corresponding, alternate, co-interior, equilateral, isosceles, scalene, quadrilateral, kite, trapezium, polygon, interior, exterior, radius, diameter, circumference, exchange rate, ratio, direct, indirect, proportion, part, whole, multiplier, original	Base, power, standard form, linear, gradient, y intercept, parallel, solution, rate of change, interpolate, extrapolate, velocity, acceleration	Congruent, similar, vector, Simple interest, multiplier, compound interest, original amount, density, mass, volume, pressure, force, area, speed, distance, time, translation, reflection, rotation, clockwise, anticlockwise, enlargement, centre, scale factor	Sample space, independent, dependent, probability, conditional, fair, bias, outcome,event, equally likely, predicted, theoretical, experimental, relative frequency, sample space, frequency tree	Quadrant, linear, gradient, y intercept, parallel, coordinate, simultaneous, solution, substitute, Pythagoras, hypotenuse, opposite, adjacent, tangent, sine, cosine, inverse

READING SKILLS

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CAREERS LINKS

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CURRICULUM AND ASSESSMENT PLAN

ORMISTON FORGE ACADEMY

MATHEMATICS

YEAR 11
FOUNDATION

CURRICULUM INTENT

The curriculum and assessment of students at this stage of education has been carefully designed to promote deep learning of mathematics and develop students into analytical and logical problem solvers: Year 11 students will strengthen their knowledge and understanding of the Big Ideas and will start to prepare for their GCSE exams. We have chosen Pearson Edexcel as our exam board; a key element of student learning in Year 11 is how to interpret GCSE questions and how to apply their understanding of the Big Ideas to these questions. Big Ideas have been developed to improve the student's ability to retain information and knowledge. We also aim for fluency in the language of mathematics and for students to enhance their literacy skills when explaining their understanding of mathematics.

PRIOR LEARNING	Year 11 will build on the knowledge, skills and understanding of mathematical concepts learned during Years 9 and 10. Foundation tier students in Year 11 will become more confident when applying this understanding to a range of challenges including multistep questions. Higher tier students will continue to develop a wider and deeper knowledge of topics, and a greater number of mathematical skills and procedures
PERSONAL DEVELOPMENT & CURRICULUM LINKS	There are opportunities for links with science, technology, geography and PE. Consistent methods will be used across all departments to support students' understanding of mathematics.
EXTRA-CURRICULAR & CULTURAL CAPITAL	AMSP will be running support sessions, trips and competitions to widen student understanding of mathematics, particularly with real life scenarios and context. In addition to this, other trips and competitions will be run with a key focus on careers and potential jobs that involve mathematics. Homework support will be available from September. The aims of these are to support students with resources and projects that would normally be unavailable to them.

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1 & 2
TOPIC/KNOWLEDGE	**GEOMETRY AND ALGEBRA** **All students will know:** Simplify expressions Substitution Expand and factorise Represent inequalities Solve inequalities Basic angle facts Bearings Reflecting shapes Vertical and horizontal graphs Rounding Estimation Bounds Rotating shapes Enlarging shape	**GEOMETRY, DATA AND ALGEBRA** **All students will know:** Plans and elevations Translate shapes Use vector notation Using tree diagrams to calculate probability Plot linear graphs Plot quadratic graphs Factorise and solve quadratics	**GEOMETRY AND ALGEBRA** **All students will know:** Pythagoras' theorem Trigonometry Solving equations Simultaneous equations Perpendicular bisector Angle bisector	**EXAM PREPARATION AND REVISION** **Assessment results from each class will inform a bespoke revision and exam preparation plan for students.**	**EXAM PREPARATION AND REVISION** **Assessment results from each class will inform a bespoke revision and exam preparation plan for students.**
SKILLS	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding. Strengthening understanding of command words used in examinations to enhance examination technique.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding. Strengthening understanding of command words used in examinations to enhance examination technique.
ASSESSMENT	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lessons and via homework set on Sparx Maths.	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. Students will sit a GCSE assessment at the beginning of the half term. This will be used to support gap closure and intervention as we progress through the year.	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. Students will sit a mock GCSE at the end of the half term which will consist of 3 GCSE papers. This will be used to support gap closure and intervention moving into the next half term	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. External assessment
VOCAB	Simplify, expression, substitute, expand, factorise, inequalities, solve, estimation, rotation, enlargement, vertical, horizontal, reflection.	Plan, elevation, face, translate, vector, linear, equation, quadratic, factorise.	Solve, simultaneous, perpendicular, bisect, trigonometry, Pythagoras, Hypotenuse, Adjacent, Opposite, Sine, Cosine, Tangent	Grid method, factorise, expand, place value table, factor, multiple, integer, estimate, order of operations, simplifying, balance method, simplify, substitute, solve, quadratic, equation, Increase, decrease, compound interest, depreciation, linear, parallel, perpendicular, HCF, LCM, sequence, Rearrange, solving, equation, balance method, acute, obtuse, reflex, parallel, bearings, best buy, inverse, simplify.	

READING SKILLS

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CURRICULUM AND ASSESSMENT PLAN

ORMISTON FORGE ACADEMY

MATHEMATICS

YEAR 11

HIGHER

CURRICULUM INTENT

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	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1 & 2
TOPIC/KNOWLEDGE	**ALGEBRA AND DATA** **All students will know:** Simultaneous equations Iteration Functions Cumulative frequency graphs Box plots	**DATA, GEOMETRY AND ALGEBRA** **All students will know:** Histograms Parts of circles Circle theorems Completing the square	**ALGEBRA AND GEOMETRY** **All students will know:** Solving linear inequalities Graphical inequalities Pythagoras' theorem in 3D Similar shapes	**GEOMETRY** **All students will know:** Vector geometry Transformations Construction Loci Solving any triangle Trigonometry in 3D	**REVISION** **Students will undertake a bespoke exam preparation and revision plan based upon each classes assessment results.** .
SKILLS	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding.	Development of problem-solving skills, alongside logical and accurate thinking when producing solutions. Application of mathematical concepts to geometric and real-life contextual problems, ensuring relevance and depth of understanding. Strengthening understanding of command words used in examinations to enhance examination technique.
ASSESSMENT	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lessons and via homework set on Sparx Maths.	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. Students will sit a GCSE assessment at the beginning of the half term. This will be used to support gap closure and intervention as we progress through the year.	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. Students will sit a mock GCSE at the end of the half term which will consist of 3 GCSE papers. This will be used to support gap closure and intervention moving into the next half term	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths.	Students will complete a low-stakes GCSE practice paper every week. Gaps identified will be addressed in lesson and via homework set on Sparx Maths. External assessment
VOCAB	Solve, equations, simultaneous, cumulative, iteration, recurrence relation, function, inverse, composite, median, interquartile range, lower quartile, upper quartile, outlier, substitute.	Histogram, frequency density, radius, circumference, diameter, segment, arc, sector, chord, tangent, cyclic quadrilateral, alternate segment, root, y intercept, turning point, minimum, maximum	Solve, inequalities, shading Region, Pythagoras, hypotenuse similar, scale factor, ratio, proportion, corresponding sides, reduction	Reflection, enlargement, translation, rotation, describe, vector, perpendicular, bisect, loci, trigonometry, hypotenuse adjacent, opposite, angle of elevation / depression,	Grid method, factorise, expand, place value table, factor, multiple, integer, estimate, order of operations, simplifying, balance method, simplify, substitute, solve, quadratic, equation, Increase, decrease, compound interest, depreciation, linear, parallel, perpendicular, HCF, LCM,

READING SKILLS

In mathematics this year, decoding, fluency, vocabulary, prior knowledge, and summarising will support problem-solving, reasoning, and comprehension of mathematical language. This will enable students to interpret, apply, and communicate concepts effectively.

CAREERS LINKS

Acoustic specialist, actuary, chartered accountant, cryptographer, data scientist, economist, investment analyst, mathematician, medical statistician, meteorologist, operations research analyst, research scientist, risk management officer, software engineer, statistician, teacher or lecturer, technician

SUPPORTING STUDENTS AT HOME

As a department, we have invested in Sparx Maths which is an online learning platform containing over 10000 mathematical videos and quizzes. This can be accessed on any device and is an excellent revision tool. Students can use revision guides and bespoke "Passports" to support their studies. Modelled answers are provided after each assessment, via YouTube videos so that students can review any topics they found challenging.