

Year 7: Annual Learning Journey

Unit 01: Number
Place Value,
Rounding, Negatives, Decimals
and Order of Operation.

**Unit 03: Using a
Calculator:**
Basic Calculations.

Unit 02: Sequences
Continuing patterns and
sequences, Term to Term
rules and Nth term.

Unit 04: Data Representation
Pictograms, Frequency Tables,
Bar Charts and Frequency
Polygons.

Unit 05: Indices, HCF & LCM
Index Laws, Product of Prime
Factors, HCF and LCM.

Unit 06: Expressions
Substitution, Collecting like
terms, Forming expressions and
Expanding Single brackets.

Unit 08: Equations Solving
one Step, More than one
step, Forming and Solving
equations and Rearranging
equations.

Unit 07: Fractions
Fractions of amount,
Equivalence, Ordering fractions
and Four operations.

**Unit 10: FDP &
Percentages**
Percentage of amount,
FDP Conversion,
Percentage change,
Percentage increase and
decrease.






Unit 11: Averages
Mode, Median, Mean and
Range, Stem and Leaf
Diagrams, Averages from
Frequency tables.

Unit 09: Perimeter
Converting measures, Finding
perimeter for rectangles, triangles,
circles and compound shapes.

- Number
- Data & Profitability
- Algebra
- Shape



Year 8: Annual Learning Journey

-  Number
-  Data & Profitability
-  Algebra
-  Shape
-  Ratio & Proportion

Unit 01: Ratio

Using Ratio Notation, Simplifying Ratios, Converting between Fractions and Ratios, Divide into a ratio and Recipes.

Unit 02: Number

Place Value, Negative and Decimals- Four Operations, Indices including negative and Fractional, HCF, LCM and Standard Form.

Unit 03: Area

Area of rectangles, triangles, compound shapes, circles, parallelograms & trapeziums. Converting units of area.

Unit 04: Probability

Probability Scale, Finding Probability of an event, Sample Space, Mutually Exclusive Events, Expected Outcomes and Experimental/Theoretical Probability.

Unit 09: FDP

Ordering FDP, percentage of amounts, Percentage Increase and Decrease, Percentage Change, Reverse Percentage and Repeated Percentage Change.

Unit 06: Angles:

Measuring and drawing angles, Types of angles, angles around a point, angles on a straight line, Angles in triangles, Angles in quadrilaterals, Angles in polygons, Angles in polygons – problem solving

Unit 07: Straight Line Graphs

Plotting and Identifying Coordinates, Identifying & Drawing $y = x$, $y = -x$, Vertical & Horizontal Lines, Plotting Straight Line Graphs using a Table of Values, Find the gradient and Y intercept of a Straight-Line Graph leading to forming $y = mx + c$ and Using $y = mx + c$ to identify the gradient and y intercept of a line.

Unit 05: Expressions & Equations

Simplifying, Forming Expressions and Equations, Substitution Expanding single & double brackets, Factorising 1 bracket, Solving 1 & 2 step equation, Solve with a variable on each side and Rearranging Formulae.

Unit 10: Transformations & Constructions

Describing Reflections, Translations and Rotations. Constructions: Perpendicular Bisectors, Angle Bisectors and Triangles.

Unit 08: Pythagoras

Identify the hypotenuse, calculate the longer and shorter sides.



- Number
- Data & Profitability
- Algebra
- Shape
- Ratio & Proportion

Unit 01: Number

Indices- simplifying numeric and algebraic, Product of prime factors, HCF and LCM.

Unit 02: Simplifying Expressions

Collecting like terms, Simplifying by multiplying and dividing, Expanding single brackets, Factorising single brackets, Substitution and Forming expressions.

Unit 03: Displaying Data

Pictograms, Bar Charts, Pie Charts, Scatter graphs and two way tables.

Unit 04: FDP

Four operations with fractions, Ordering fractions, Percentage of amount, Percentage Change, Reverse percentages and Simple Interest.

Unit 06: Solving Equations:

One and Two step equations, equations with brackets, equations with unknowns on both sides, forming and solving equations and changing the subject of the formula.

Unit 05: Rounding, Decimals and Negatives

Rounding: Wholenumbers, decimals and significant figures, Estimation, ordering decimals, four operations with decimals and negatives, money calculations.

Unit 07: Angles

Types of angles, Basic angle facts: triangle, straight line, around a point and vertically opposite, Parallel lines: Alternate, corresponding and co-interior.

Unit 09: Perimeter and Area

Perimeter and Area of 2D shapes, Circumference of circles, Area of circles, Arc lengths and Area of sectors.

Unit 11: Sequences

Extending patterns, Finding next term and term to term rules, Square and Triangular numbers, Linear sequences: Finding the nth term and applying the nth term, Fibonacci and Simple geometric.

Unit 08: Averages and Range

Mean, Mode, Median and Range. Finding averages from grouped and ungrouped frequency tables.

Unit 10: Ratio

Simplifying Ratios, Ratio calculations, Recipes, Best Buys and More Than problems.

Year 9: Foundation Annual Learning Journey



MATHS



Year 10

Term 1:

- > Equations and Inequalities
- > Trigonometry
- > Simultaneous Equations
- > Ratio and Fractions
- > Congruence and Similarity
- > Circle Geometry

Term 2:

- > Angles and Bearings
- > Percentages and Interest
- > Probability
- > Data Representation
- > Non-Calculator Methods
- > Sequences
- > Indices and Roots

Term 3:

- > Manipulating Expressions
- > Functions
- > Changing the Subject
- > Non-Linear Graphs
- > MOCK Preparation

Year 11

Term 1:

- > Pythagoras' Theorem
- > Trigonometry
- > Vectors
- > Sequences
- > Units and proportionality

Term 2:

- > Targeted revision for GCSE exam

Term 3:

- > Targeted revision for GCSE exam

Pearson Level 3 Advanced GCE in Mathematics

Units Pure Mathematics

- Topic 1 - Proof
- Topic 2 - Algebra and Functions
- Topic 3 - Coordinate geometry in the (x, y) plane
- Topic 4 - Sequences and series
- Topic 5 - Trigonometry
- Topic 6 - Exponentials and logarithms
- Topic 7 - Differentiation
- Topic 8 - Integration
- Topic 9 - Numerical methods
- Topic 10 - Vectors

Statistics

- Topic 1 - Statistical Sampling
- Topic 2 - Data presentation and interpretation
- Topic 3 - Probability
- Topic 4 - Statistical distributions
- Topic 5 - Statistical hypothesis testing

Mechanics

- Topic 6 - Quantities and units in mechanics
- Topic 7 - Kinematics
- Topic 8 - Forces and Newton's laws
- Topic 9 - Moments

Exam Paper Information

Paper NO: 9MA0/ 01 and 9MA0/ 02

Paper 1 and Paper 2 may contain questions on any topics from the Pure Mathematics content.
Students must answer all questions.
Calculators can be used in the assessment.
Each paper is: 2-hour written examination 33.33% of the qualification 100 marks

Paper NO: 9MA0/ 03

Paper 3 will contain questions on topics from the Statistics content and Mechanics content
Students must answer all questions.
Calculators can be used in the assessment.
Paper Consists of 2-hour written examination 33.33% of the qualification 100 marks

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MATHS



Year 12

September

- > Algebraic Expressions
- > Quadratics
- > Equations and inequalities
- > Graphs and transformations

October

- > Straight line graphs
- > Circles
- > Algebraic methods
- > The binomial expansion

November

- > Trigonometric ratios
- > Trigonometric identities and equations
- > YR12 Whole Year Assessment

December

- > Differentiation
- > Integration

January

- > Vectors
- > Exponentials and logarithms
- > Data collection
- > Measures of location and spread

February

- > Representations of data
- > Correlation
- > Probability

March

- > Year 12 Whole Assessment
- Modelling in mechanics
- > Constant acceleration

April

- > Statistical distributions
- > Hypothesis testing

May

- > Forces and motion
- > Variable acceleration

June

- > Predicted Grade Assessment

July

- > Algebraic methods
- > Radians
- > Trigonometric functions

Year 13

September

- > Trigonometry and modelling
- > Functions and graphs
- > Sequences and series

October

- > Binomial expansions
- > Parametric equations
- > Differentiation

November

- > Integration
- > Vectors

December

- > Mock Examinations

January

- > Regression, correlation and Hypothesis testing

February

- > Conditional probability
- > The normal distribution
- > Moments
- > Forces and friction

March

- > Projectiles
- > Applications of forces
- > Further Kinematics

April to July

- > Revision