



Year 7 Maths

AUTUMN TERM

- Number work
- Introduction to algebra
- Time
- Measures
- Shapes

SPRING TERM

- Perimeter and area
- Coordinates
- Factors, multiples and primes
- Fractions
- Brackets
- Angles

SUMMER TERM

- Averages and range
- Tables and charts
- Proportion
- More fractions
- Probability

YEAR 7 CURRICULUM OVERVIEW

The Year 7 Maths curriculum is designed to build on the foundational skills acquired in primary school and to prepare students for more advanced mathematical concepts in later years. The curriculum typically covers a broad range of topics and will seek to develop fluency in fundamental skills as well as the ability to reason mathematically and to solve unfamiliar problems.



Year 8 Maths

AUTUMN TERM

- Percentages
- Indices
- Equations
- Sequences
- Ratio
- Rounding
- Coordinates

SPRING TERM

- Area
- Circles
- Standard form
- Venn diagrams
- 3D shapes, surface area and volume
- Linear graphs

SUMMER TERM

- Transformations
- Angles
- Brackets
- Inequalities
- Algebraic fractions
- Recurring decimals

YEAR 8 CURRICULUM OVERVIEW

The Year 8 Maths curriculum is designed to build on the foundational skills acquired in year 7 and in primary school and to prepare students for more advanced mathematical concepts in later years. The curriculum typically covers a broad range of topics and will seek to develop fluency in fundamental skills as well as the ability to reason mathematically and to solve unfamiliar problems.



Year 9 Maths

AUTUMN TERM

- Graphs and coordinates
- Proportion and conversion graphs
- Averages
- Representing data
- Working with tables
- Solving equations

SPRING TERM

- Expanding and factorising brackets
- Index laws
- Inequalities
- Area and circumference of circles
- Similarity and congruence
- Angle facts

SUMMER TERM

- Working with 2D shapes
- Volume and surface area
- Transformations
- Plans and elevations
- Financial maths

YEAR 9 CURRICULUM OVERVIEW

The Year 9 Maths curriculum is designed to build on the foundational skills acquired at North Lodge and to prepare students for more advanced mathematical concepts in later years. The curriculum typically covers a broad range of topics and will seek to develop fluency in fundamental skills as well as the ability to reason mathematically and to solve unfamiliar problems.



Year 10 Maths

AUTUMN TERM

Higher

- Evaluating indices and index laws
- Standard form
- Surds
- Sequences
- Percentages
- Equations of lines

Foundation

- Index laws
- Standard form
- Fractions, decimals and percentages
- Percentages
- Ratio
- Proportion

SPRING TERM

Higher

- Drawing graphs
- Solving quadratic equations
- Probability
- Ratio

Foundation

- Drawing graphs
- Forming and solving equations
- Probability
- Angles facts
- Similarity
- Compound measures

SUMMER TERM

Higher

- Enlargement
- Similarity
- Compound measures
- Bounds
- Fractions
- Sampling

Foundation

- Area of circles
- Volume of cylinders
- Rounding and estimation
- Fraction arithmetic
- Sequences

YEAR 10 CURRICULUM OVERVIEW

The curriculum seeks to ensure students have gained all the knowledge and mastered all the skills needed for their GCSE examination as well as ensuring they can apply their knowledge in exam style problems and can provide sound mathematical reasoning when talking and writing about their work.



Year 11 Maths



AUTUMN TERM

Higher

- Ratio
- Cumulative frequency and box plots
- Circle theorems
- Further trigonometry
- Proportion equations
- Algebraic manipulation

Foundation

- Probability
- Pythagoras theorem
- Right angled trigonometry
- Expanding and factorising quadratics
- Quadratic graphs
- Vectors

SPRING TERM

Higher

- Functions
- Vectors
- Quadratic graphs
- Speed, time graphs
- GCSE revision and preparation

Foundation

- Further algebra
- Transformations
- Bearings and scale drawings
- GCSE revision and preparation

SUMMER TERM

Higher

- GCSE revision and preparation
- External examinations (GCSE)

Foundation

- GCSE revision and preparation
- External examinations (GCSE)

YEAR 11 CURRICULUM OVERVIEW

The curriculum seeks to ensure students have gained all the knowledge and mastered all the skills needed for their GCSE examination as well as ensuring they can apply their knowledge in exam style problems and can provide sound mathematical reasoning when talking and writing about their work.



Year 12 Maths

AUTUMN TERM

- Algebraic skills: quadratics, inequalities, graphs, factor theorem, polynomial division
- Exponentials & logarithms
- Mechanics: kinematics with constant acceleration and motion graphs
- Statistics: probability, measures of central tendency and spread
- Further algebra: binomial expansion, algebraic proof
- Coordinate geometry: lines, parallel and perpendicular, circles
- Trigonometry: triangles, trigonometric identities, solving trigonometric equations

SPRING TERM

- Differentiation
- Vectors: 2 dimensions
- Integration
- Logarithms: logarithmic graphs
- Statistics: distributions, hypothesis testing, data representation
- Mechanics: forces

SUMMER TERM

- Mechanics: variable acceleration
- Statistics: large data set
- Consolidation of year 12 topics
- Proof: proof by contradiction
- Algebraic fractions & partial fractions
- Functions: domain, range, inverse, composite, modulus function

YEAR 12 CURRICULUM OVERVIEW

The Maths A-Level curriculum is designed to deepen students' understanding of mathematical concepts and prepare them for higher education or careers that require strong analytical and problem-solving skills. The curriculum will ensure that students have knowledge of all the content needed for their A level examination along with the ability to apply this knowledge when solving unfamiliar problems.



Year 13 Maths

AUTUMN TERM

- Differentiation: trigonometry, logarithms, exponentials, product rule, quotient rule, chain rule
- Integration: trigonometry, by parts, substitution, differential equations
- Trigonometry: reciprocal and inverse functions, identities, modeling
- Numerical methods: iteration, numerical methods, location of roots
- Binomial expansion: negative & fractional powers
- Parametric equations: Cartesian form, differentiation, integration
- Vectors: 3 dimensions

SPRING TERM

- Statistics:
 - conditional probability
 - normal distribution
 - tests on the mean
 - regression
 - tests for positive correlation
- Mechanics:
 - projectiles
 - moments
 - forces on inclined planes
 - statics & dynamics problem
 - variable acceleration in 3 dimensions

SUMMER TERM

- Revision and examination preparation

YEAR 13 CURRICULUM OVERVIEW

The Maths A-Level curriculum is designed to deepen students' understanding of mathematical concepts and prepare them for higher education or careers that require strong analytical and problem-solving skills. The curriculum will ensure that students have knowledge of all the content needed for their A level examination along with the ability to apply this knowledge when solving unfamiliar problems.