MATHEMATICS

Sequence of Learning

A Visual Roadmap Through Key Stages

Learning Journey Overview

Progressive development across key stages

Discover
KS2

Explore
KS3

Aspire
Year 9

Lead
KS4

Ready
Post-16

Six Key Mathematical Strands woven throughout each stage

Six Key Mathematical Strands

Core topics that develop throughout the curriculum

Number

Operations, fractions, and place value

Algebra

Patterns, equations, and formulas

Geometry

Shapes, space, and measures

Statistics

Data handling and interpretation

Probability

Likelihood and uncertainty

Ratio & Proportion

Relationships and rates of change

DISCOVER

Key Stage 2 – Building foundations for mathematical thinking

Number

Place value, counting, addition, subtraction, multiplication, division, fractions, and money

Geometry

Length, perimeter, shapes, lines, angles, and units of measurement

EXPLORE

Key Stage 3 – Developing mathematical reasoning and independence

Algebra

Straight line graphs, equations, inequalities, conjectures, and algebraic representation

Geometry & Measure

2D and 3D construction, congruency, rotation, translation, Pythagoras theorem, and similarity

Number

Using percentages, mathematics and money in real-world contexts

Probability & Statistics

Representations of probability and data handling techniques

ASPIRE

Year 9 – Making informed choices about GCSE pathways

Statistics

Statistical representations including charts, graphs, and measures of central tendency

Ratio & Proportion

Understanding rates, scaling, and proportional relationships in context

Problem Solving

Building confidence in mathematical reasoning, exploration, and proof

Real-World Applications

Financial mathematics, measurements, and practical problem solving

LEAD

Key Stage 4 – Taking responsibility and demonstrating mastery

Algebra

Simultaneous equations, expanding and factorising, quadratics, and changing the subject

Geometry

Congruency, similarity, enlargement, trigonometry, vectors, and bearings

Number

Non-calculator operations with confidence and fluency in all number types

Probability

Combined events, two-way tables, Venn diagrams, and expressing probability

READY

Post-16 – Preparing for independent adult life and work

Functional Number Skills

Confident application of decimals, fractions, percentages, and money in everyday contexts

Practical Algebra

Using formulas, substitution in real-life contexts, and understanding relationships

Measurement & Geometry

Area, perimeter, volume calculations for practical problems including workplace contexts

Data & Probability

Interpreting data, understanding likelihood, and making informed decisions

Progressive Development

How mathematical learning deepens across key stages

Foundation

KS2: Identify, explain, describe

Development

KS3-Y9: Suggest, recognize, manage

Mastery

KS4: Assess, demonstrate, evaluate

Confidence

P16: Confidently apply & analyze

Continuous growth from basic understanding to confident, independent problem-solving

Empowering Students

Through progressive mathematics education

Building confident, numerate, and analytical young adults ready for life beyond school