

Key Stage 3 Mathematics

Our curriculum empowers students to achieve fluency in the fundamentals of mathematics through consistent practice with progressively challenging problems. This approach fosters a deep conceptual understanding and enables students to recall and apply knowledge quickly and accurately.

At Red Balloon, we recognize that mathematics is a vital life skill integral to everyday decision-making. We are dedicated to supporting each student in reaching their full potential and cultivating a thorough understanding of mathematics. Our department fosters a nurturing environment that promotes a culture of success, ensuring that every student develops a lifelong love of learning.

The Key Stage 3 curriculum is thoughtfully designed to enhance students' understanding and confidence in numerical operations and calculations. It covers key concepts in shape and space, including 3D shapes and angle rules, while introducing algebra and progressing to graphs and transformations. Students will also learn to represent, summarize, and compare data sets effectively.

Curriculum Intent

Mathematics is a dynamic and interconnected field that has evolved over centuries, offering solutions to some of history's most fascinating challenges. It plays a vital role in our daily lives, underpinning science, technology, and engineering, and is crucial for financial literacy and various career paths. A strong mathematics education lays the groundwork for comprehending the world, enhances mathematical reasoning skills, fosters an appreciation for the elegance and power of math, and ignites curiosity and enjoyment in the subject.

Aims and learning outcomes

The KS3 national curriculum for mathematics aims to ensure that all pupils: -

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships, and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Content

Content is arranged by topic area and applies to both tiers (Foundation and Higher) as detailed in the specification. Topics are listed below, and any topic may be assessed on any paper.

Number operations and integers, Algebra, Ratio, proportion & rates of change, Geometry & measure, Probability and Statistics.

Assessment

There is no final qualification associated with this scheme. Internal assessments, including BKSB, will be conducted periodically in line with our assessment policy to ensure pupils are working towards their expected goals for the future

Specification

<https://www.gov.uk/government/publications/teaching-mathematics-at-key-stage-3>