

Y7 ROADMAP - Mathematics

Subject Aim: The aim of the Year 7 Maths curriculum is to build a solid foundation in key skills and concepts, setting students up for success in later years. It supports the move from Key Stage 2 by reinforcing core topics while introducing new content in a well-sequenced way. Through tailored practice, students develop fluency, confidence, and strong learning habits, supported by regular retrieval and focused revision.

TERM 1

Students will begin by exploring linear and non-linear sequences, building on their Key Stage 2 understanding of number patterns. They will then develop their use of algebraic notation and substitution, using function machines and inverse operations to represent mathematical relationships. Finally, students will work with expressions and equations, learning to recognise like and unlike terms and to form and solve linear equations. These units provide a foundation for the algebra studied throughout secondary mathematics.

TERM 2

Students will develop their understanding of place value, ordering and rounding, extending their Key Stage 2 knowledge to include integers, decimals and measures. They will then consolidate the four operations, including calculations with integers and decimals and the correct order of operations. Students will explore averages and range, including data presented in frequency tables, before developing their understanding of rounding and estimation to include significant figures, estimation and error intervals.

TERM 3

Students will begin by interpreting and representing data using pictograms, bar charts, scatter graphs and time-series graphs, building on their Key Stage 2 work with statistics. They will then develop their understanding of fractions, decimals and percentages, exploring equivalence and learning to convert fluently between these different forms. These units strengthen students' ability to interpret information, identify patterns and select appropriate representations when solving problems.

TERM 4

Students will develop their understanding of directed number, calculating with positive and negative values and applying the order of operations. They will then explore fractions and percentages of amounts, including increases, decreases and reverse problems. Students will build on their prior work with shape to calculate the perimeter and area of a range of 2D shapes, before solving problems involving time, timetables, speed, distance and time-distance graphs.

TERM 5

Students will begin by exploring properties of number, including factors, multiples, highest common factors, lowest common multiples, powers, roots and prime factorisation. They will then develop their understanding of fractions, building on Key Stage 2 learning to simplify fractions, convert between mixed numbers and improper fractions, and add and subtract fractions with different denominators. They will also apply these skills in more complex numerical and algebraic contexts.

TERM 6

Students will develop their understanding of angles and polygons, building on their Key Stage 2 knowledge of shape and geometric properties. They will learn to draw and measure angles accurately, use standard geometric notation, and identify parallel and perpendicular lines. Students will then apply angle facts involving points, straight lines, triangles and quadrilaterals, before exploring the interior and exterior angles of polygons and angles formed by parallel lines.



ASSESSMENT

All lessons will assess understanding through a range of activities, including diagnostic questions, mini whiteboard tasks, and find-and-fix activities. Lessons are regularly punctuated with hinge questions, key statements, and opportunities for discussion. In addition to these ongoing checks for understanding, students will complete formal assessments at the start of the year and once each term.



INDEPENDENT LEARNING

Sparx Maths is used throughout the year to support independent learning, revision, and personalised "fix-up tasks" following assessments. Weekly independent learning on Sparx is closely aligned with lesson content and includes bespoke tasks tailored to each student's needs, with both the content and level of difficulty personalised. These tasks enable students to consolidate and revisit material most relevant to their individual progress. Knowledge Organisers are also used weekly to reinforce key vocabulary and support learning across the curriculum.



ENRICHMENT

- Maths challenge activities.
- Maths' relays allowing opportunity for problem solving.

What Next? Having built a strong foundation in key mathematical skills during Year 7, students will continue to develop and apply these in Year 8, building on prior knowledge through the spiral curriculum. They will begin to justify their answers using logical reasoning and proof-based approaches.