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

How do manage my finances?

A key focus in this term is developing a deep understanding of number lines, which supports later work on interpreting scales and axes. Students will also consolidate their skills in rounding to significant figures and decimal places. Building on the formal calculation methods introduced at Key Stage 2, all students will apply these techniques to interpret and solve a variety of problems. For those with secure foundational skills, there will be a greater emphasis on problem-solving and application. The unit also introduces roots, powers, and the correct use of the order of operations.

TERM 2

How can a letter also be a number?

This term introduces students to the concept of using algebra to generalise mathematical ideas. The focus is on developing a strong understanding of basic algebraic structures, laying the groundwork for tackling more complex expressions later on. Students will learn to simplify expressions by collecting like terms and will be introduced to solving equations through the use of inverse operations—starting with one-step equations and progressing to two-step equations. The term then moves on to explore the concept of measure, followed by a study of 2D shapes and symmetry.

TERM 3

Can I calculate the area of a hexagon?

This term builds on the number skills developed in Term 1 by applying them to the concepts of perimeter and area—using addition and subtraction for perimeter, and multiplication and division for area of rectangles, triangles, and compound shapes. Students will revisit coordinates from Key Stage 2 and apply them to problems involving shapes, laying the groundwork for more advanced work on area, surface area, volume, and complex coordinates in Year 8. The term concludes with a focus on factors, multiples, and prime numbers to further strengthen students' understanding of number.

TERM 4

Why do fractions sometimes behave in an improper manner?

This term focuses on developing a strong understanding of fractions, beginning with equivalence and progressing to addition and subtraction, including calculations involving fractions greater than one. These skills form the foundation for further study in Year 8, where numeric fractions will be revisited and algebraic fractions introduced. Students will also build on their prior work with expressions, equations, factors, and multiples to expand and factorise single brackets. Expanding double brackets is introduced in Year 8, with factorising into double brackets covered in Year 9.

TERM 5

What is the average number of degrees in a triangle?

This term builds on students' knowledge of graphs and charts from Key Stage 2. They explore different ways to represent, collect, and record data using tables, and learn to analyse and interpret it using averages and the range. Students also consider the suitability of different averages in various contexts and begin solving problems involving data. In Year 8, this is extended to include representations like stem-and-leaf diagrams and calculating averages from grouped data.

TERM 6

Can we use fractions to compare test results?

This term begins by extending students' skills in calculating with fractions, including multiplying and dividing fractions greater than 1 and finding fractions of amounts. Students then explore the equivalence between fractions, decimals, and percentages to develop fluency in converting between them. Finally, the language of probability is revisited, building on prior knowledge by expressing probabilities as fractions, decimals, and percentages.

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.

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