Parkside School Curriculum Map 2025/6

Mathematics

Year 9						
Term 1: Autumn 1	**Term 1: Autumn 2**	**Term 2: Spring 1**	**Term 2: Spring 2**	**Term 3: Summer 1**	**Term 3: Summer 2**	**Age Related Expectations (ARE)**
Number **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit:** • +, -, x, ÷ negative numbers • Problem solve with negative numbers • BIDMAS • HCF and LCM • Prime numbers • Prime factor decomposition **Prior knowledge:** • Ordering negative numbers and real life applications • Place value • Read and write big numbers • Timestables up to and including 12 x 12 • +, -, x, ÷ numbers • Multiple and factors • Venn Diagram	**Bar and Line charts** **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit:** • Tally charts, frequency charts, bar charts, vertical line charts and frequency polygons • Mode, median, mean and range from a list, non- grouped and grouped data • Time-series graph • *Cumulative frequency graphs* **Prior knowledge:** • Find the mode, median, mean and range from a set of data. • Bar charts • Plotting coordinates • Draw axes for the above charts	**Algebra** (runs from Spring 1 into Spring 2) **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit:** • Expand and factorise double brackets • Forming terms, equations and formula • Factorise quadratic equations • *Product of 3 brackets* **Prior knowledge:** • Understanding algebraic notation • Simplify algebraic expressions by +, -, x, ÷ • Basic substitution • Expand and factorise single brackets • Index laws	**Ratio** (runs from Spring 2 into Summer 1) **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit:** • Use ratio to convert units including compound measures (speed and volume) • Use the difference between 2 parts to find ratios • Write in the ratio 1:n or n:1 **Prior knowledge:** • Share amount given ratio • Simplify ratio • Equivalent ratio • Multipliers • Some basic metric conversions cm to m	**2D shapes** **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit:** • Symmetry • Tessalation • Properties of shapes • Name of polygons • Perimeter, area and volume using algebra • Complete shapes on coordinate grid • Area of compound shapes (triangles and quadrilaterals) • Real life problem solving using shapes • Pythagoras **Prior knowledge:** • Perimeter • Area of the following shapes: Square, Rectangle, Triangle, Trapezium and Parallelogram • Volume of Cube, cuboid, • Reflection • Translation • Coordinates (4 quadrants) • Money skills • Square and square rooting	**Solving equations** **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit**: • Solve equations with unknowns on both sides • Solve equations with brackets on both sides • Rearrange 1 step and 2 step formula • Solve equations with algebraic fractions • Solve equations with square and square roots **Prior knowledge** • Function machines • Solve 1 step and 2 step equation including 1 bracket • +, -, x, ÷ fractions • Simplify terms • Expand and factorise • BIDMAS	• BIDMAS • Standard form • Rounding to a given decimal place and significant figures • +,-, x, ÷ fractions including mixed numbers • Use ratio to convert units (length, mass and capacity) • Real life problems using shapes • Forming formulas

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Decimals (runs from Autumn 1 into Autumn 2) **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit**: • Ordering decimals • Money problems • Rounding to different decimal places and significant figures • Estimating • Standard form and *Calculating with standard form* • *Bounds* **Prior knowledge:** • +, -, x, • ÷ numbers and decimals • X and ÷ by 10, 100 and 1000 • Place value • Rounding to 10, 100, 1000 and integer	**Fractions** (runs from Autumn 2 into Spring 1) **What is the purpose of this unit?** See box below **Overview of the knowledge and skills covered in this unit:** • Fractions of amounts • Order fractions • Increase and decrease by a fraction • +, -, x, • ÷ fractions including mixed numbers **Prior knowledge:** • Convert between fractions and decimals • Draw and write fraction • Simplify fractions • Equivalent fractions including mixed numbers					

Purpose: Each unit is designed to reinforce and extend students' understanding of foundational math concepts, including **Number, Decimals, Bar and line graphs, Fractions, Ratio, 2D shapes, and Solving equations**. This will build a strong groundwork for more advanced topics beyond Year 9. For those who have already mastered these skills, we'll provide challenging, multi-step problem-solving tasks to foster deeper application and critical thinking.

Objectives in *italics* may not be covered by every group.