Year 6 Medium Term Planning Autumn

Week	Topic	Curriculum Objective	Challenge
1-3	Number, place value and rounding	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above	● Understand and use place value for decimals and integers of any size. ● Use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative when solving practical problems.
4-5	Mental and written addition and subtraction	Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. Solve problems involving addition, subtraction, multiplication and division. Add and subtract decimals.	● To perform mental calculations, including with positive and negative numbers, mixed operations and large numbers ● Break a complex calculation into simpler steps, choosing and using appropriate and efficient operations, methods and resources.
6-7	Mental and written multiplication	Multiply multi-digit number up to 4 digits by a 2 digit number using the formal written method of long multiplication. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve problems involving addition, subtraction, multiplication and division. Divide numbers up to 4 digits by a 2 digit number using the formal written method of short division, interpreting remainders according to context. Perform mental calculations, including with mixed operations.	● Use conventional notation for the priority of operations, including brackets, powers, roots. (BODMAS) ● Divide a given quantity into 2 parts in a given part: part or part: whole ratio; express the division of a quantity into 2 parts as a ratio. ● Use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative.
8	Measurement	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp.	● Change freely between related standard units [for example time, length, area, volume/capacity, mass, m, cm, mm, km, kg, g,] ● Choose appropriate units of measure for complex 'real world' situations.
9	Mental and written division	Divide numbers up to 4 digits by a 2 digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions or by rounding as appropriate for the context. Solve problems involving addition, subtraction, multiplication and division operations and large numbers.	● Use conventional notation for the priority of operations, including brackets, powers, roots. (BODMAS) ● Divide a given quantity into 2 parts in a given part: part or part: whole ratio; express the division of a quantity into 2 parts as a
10-12	Fractions	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions. Generate and describe linear number sequences (with fractions) Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Associate a fraction with division and calculate decimal fraction equivalents. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	● use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative ● work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and 2 7 or 0.375 and 8 3) ● interpret fractions and percentages as operators
13	Consolidate and Assess		