YEAR 6 Medium Term Plan 2022-2023

Autumn

Place Value
• Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit
• Solve number and practical problems that involve the above
• Round any whole number to a required degree of accuracy
• Solve number and practical problems that involve the above
• Use negative numbers in context, and calculate intervals across zero
• Solve number and practical problems that involve the above

6NPV-1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).

6NPV-2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.

6NPV-3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.

6NPV-4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.

Addition, Subtraction, Multiplication and Division
• 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
• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
• Identify common factors, common multiples and prime numbers
• Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication
• Perform mental calculations, including with mixed operations and large numbers
• Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
• Divide numbers up to four 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

• Use their knowledge of the order of operations to carry out calculations involving the four operations
• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.

Fractions A
• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
• Compare and order fractions, including fractions > 1
• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
• Identify common factors, common multiples and prime numbers
• 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

Fractions B
• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5)
• Multiply simple pairs of proper fractions, writing the answer in its simplest form
• Divide proper fractions by whole numbers
• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
• Solve problems involving addition, subtraction, multiplication and division
• Associate a fraction with division and calculate decimal fraction equivalents

Converting Units
• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 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 3 decimal places