Brackenwood Junior School

Maths

Long Term Intent

Y5

2022/23

	Unit 1 - Place Value within 100,000	Unit 2 – Place Value within 1,000,000	Unit 3 – Addition and Subtraction	Unit 4 – Graphs and tables	Unit 5 – multiplication and Division	Unit 6 – Measure – area and perimeter
Autumn	-Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit -Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 -Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 -Solve number problems and practical problems that involve all of the above -Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	-Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit -Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 -Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero -Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 -Solve number problems and practical problems that involve all of the above	-Estimate and use inverse operations to check answers to a calculation -Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) -Add and subtract numbers mentally with increasingly large numbers -Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	-Solve comparison, sum and difference problems using information presented in a line graph -Complete, read and interpret information in tables, including timetables	-Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers -Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers -Establish whether a number up to 100 is prime and recall prime numbers up to 19 -Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 -Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) -Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes -Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	-Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres -Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes
	Unit 7 – Multiplication and Division	Unit 8 – Fractions	Unit 9 - Fractions	Unit 10 - Fractions	Unit 11 – Decimals and percentages	

Spring	-Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers -Multiply and divide numbers mentally drawing upon known facts -Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	-Compare and order fractions whose denominators are all multiples of the same number -Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths -Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 =6/5 = 1 1/5] -Read, write, order and compare numbers with up to three decimal place	-Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 =6/5 = 1 1/5] -Add and subtract fractions with the same denominator and denominators that are multiples of the same number	-Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	-Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths -Read and write decimal numbers as fractions [for example, 0.71 = 71/100] -Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents -Round decimals with two decimal places to the nearest whole number and to one decimal place -Read, write, order and compare numbers with up to three decimal places -Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal -Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25	
	Unit 12 - Decimals	Unit 13 Geometry – properties of shapes	Unit 14 Geometry – properties of shapes	Unit 15 – Geometry – position and direction	Unit 16 – Measure – converting units	Unit 17 – Measure – volume and capacity

Summer	-Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents -Read, write, order and compare numbers with up to three decimal places -Solve problems involving number up to three decimal places	-Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles -Draw given angles, and measure them in degrees (°) -Use the properties of rectangles to deduce related facts and find missing lengths and angles -Angles at a point and one whole turn (total 360°) -Angles at a point on a straight line and 1/2 a turn (total 180°)	-Identify 3-D shapes, including cubes and other cuboids, from 2-D representation -Draw given angles, and measure them in degrees (°) -Use the properties of rectangles to deduce related facts and find missing lengths and angle -Distinguish between regular and irregular polygons based on reasoning about equal sides and angle	-Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not change	-Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre -Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pint -Solve problems involving converting between units of time -Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	-Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water