BRACKENWOOD JUNIOR SCHOOL

Year 5 Mathematics Curriculum Overview

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals, Percentages and Ratio
I know that 10 tenths 100 hundredths are equivalent to one 1 and that 1 is ten times the size of one tenth and 100 times the size of one hundredth. I can work out how many hundreds there are in four digit multiples of 100. (KPI1) **I can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (KPI2)** I can count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 **I can recognise the place value of each digit in numbers with up to two decimal places. (KPI3)** **I can read, write, order and compare numbers with up to three decimal places (KPI4)** **I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero (KPI5)** **I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 (KPI6)** I can solve number problems and practical problems that involve all of the above I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	**I can add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) (KPI7)** I can add and subtract numbers mentally with increasingly large numbers I can mentally add two decimal numbers to one decimal place. I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	**I can divide 1 into 2,4,5 and 10 equal parts. (KPI8)** I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers **I can establish whether a number up to 100 is prime and recall prime numbers up to 19 (KPI9)** **I can 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 (KPI10)** I can multiply and divide numbers mentally drawing upon known facts **I can 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 (KPI11)** **I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 (KPI12)** **I can recognise and use square numbers and cube numbers and the notation for squared (^{2}) and cubed (^{3}) (KPI13)** I can solve problems involving multiplication and division including using their knowledge of factors and multiples squares and cubes I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	I can compare and order fractions whose denominators are all multiples of the same number **I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths (KPI14)** **I can 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, two-fifths + four-fifths = six fifths = 1 and 1-fifth (KPI15)** **I can add and subtract fractions with the same denominator and denominators that are multiples of the same number (KPI16)** I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams I can read and write decimal numbers as fractions [for example, 0.71 = 71 hundredths **I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (KPI17)** **I can round decimals with two decimal places to the nearest whole number and to one decimal place(KPI18)** I can solve problems involving number up to three decimal places **I can 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 (KPI19)** I can solve problems which require knowing percentage and decimal equivalents of half, quarter, fifth, two fifths and four fifths and those fractions with a denominator of a multiple of 10 or 25.

Measurement	Shapes and Space	Statistics
I can convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) (KPI20) I can understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres **I can 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 (KPI21)** I can estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water] I can solve problems involving converting between units of time I can use all four operations to solve problems involving measure using decimal notation, including scaling.	I can identify 3-D shapes, including cubes and other cuboids, from 2-D representations **I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles (KPI22)** **I can draw given angles, and measure them in degrees (o) (KPI23)** **I can identify angles at a point and one whole turn (total 360o) (KPI24)** **I can identify angles at a point on a straight line and half a turn (KPI25)** I can identify other multiples of 90o I can use the properties of rectangles to deduce related facts and find missing lengths and angles I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles. I can 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 changed.	I can solve comparison, sum and difference problems using information presented in a line graph I can complete, read and interpret information in tables, including timetables.