End of Year 2 Mathematics expectations

Calculation Policy	To add 2 two-digit numbers within 100 (demonstrating their method using concrete apparatus or pictorial representations)
	To add a two-digit number and ones and a two-digit number and tens where no regrouping is required (e.g. 23 + 5; 46 + 20)
	To subtract a two-digit number and ones and a two-digit number and tens where no regrouping is required
	To add numbers using increasingly formal written methods (up to 2 digit by 2 digit)
	To subtract numbers including those involving numbers, quantities and measures (using concrete objects and pictorial representations)
	To subtract numbers using increasingly formal written methods (up to 2 digit by 2 digit)
	To solve problems involving multiplication (using materials, repeated addition and arrays)
	To solve problems involving division (using materials, repeated subtraction and arrays)
Mental Calculations	To recall and use multiplication facts for the 2, 5 and 10 multiplication tables
	To recall and use division facts for the 2, 5 and 10 multiplication tables to solve simple problems
	To begin to use other multiplication tables (beyond 2,5 and 10)
	To use multiplication facts to make deductions outside of known multiplication facts
	To recall doubles and halves to 20
	To recognise odd and even numbers within times tables
	To solve problems involving addition using mental strategies
	To subtract mentally a two-digit number from another two-digit number when there is no regrouping required (e.g. 74 – 33)
	To work out mental calculations where regrouping is required (E.g. 52-27, 91-73)
	To solve problems involving subtraction using mental strategies
	To solve problems involving multiplication using mental strategies
	To solve problems involving divisions using mental strategies
	To use number bonds and related subtraction facts within 20 (e.g. 18 = 9 + ?; 15 = 6 + ?)
	To derive facts using addition and subtraction to 20 (3+7=10 10-7=3 30+70=100 100-70=30)
	To quickly derive and use addition and subtraction facts up to 100
	To count in twos, fives and tens from 0 and use counting strategies to solve problems (counting 35 chairs in rows of 5)
Calculating	To use place value and number facts to solve problems
	To calculate mathematical statements for multiplication and division within the 2, 5 and 10 times tables
	To write and solve mathematical statements using the multiplication(×), division(÷) and equals(=) signs (known tables)
	To show that multiplication of two numbers can be done in any order (commutativity)
	To use commutativity and inverse relationships to create multiplication families (number trios)
	To show that addition of two or more numbers can be done in any order (commutativity)
	To check addition through adding numbers in a different order (commutativity)
	To show that division of one number by another cannot be done in any order
	To show that subtraction of one number from another cannot be done in any order
	To recognise the relationships between addition and multiplication (e.g. rewriting addition statements as simplified multiplication statements)
	To solve problems involving addition in contexts
	To reason about addition (e.g. the sum of three odd numbers will always be odd)
	To solve problems involving subtraction in contexts
	To solving missing number problems involving addition and subtraction (using inverse relationships)
	To solve word problems that involve more than one step
	To understand and use the terms sum and difference
	To state the difference in tens and ones between two numbers
	To solve problems involving multiplication in contexts
	To solve problems involving division in contexts
	To determine remainders given known facts
	To recognise and use the inverse relationship between addition and subtraction
	To use the inverse relationship between addition and subtraction to check calculations
	To use the inverse relationship between addition and subtraction to work out missing number problems
	To solve more complex missing number problems (e.g. 14 + ? – 3 =17, 14 + ? = 15 +27)
	To use estimation to check that answers to a calculation are reasonable (e.g. knowing that 48 + 35 will be less than 100).
Place value	To read and write numbers correctly in numerals up to 100
	To compare and order numbers from 0 up to 100
	To use <, > and = signs to compare 2 digit numbers
	To partition two digit numbers into different combinations of tens and ones (23 = 20 + 3 and 10 + 13 – including using apparatus)
	To recognise the place value of each digit in a two-digit number
	To begin to understand zero as a place holder
	To find 10 more or less than a given 2 digit number

End of Year 2 Mathematics expectations

Number system	To order and arrange combinations of mathematical objects in patterns and sequences (including 2d shapes in different orientations)
	To identify, represent and estimate numbers using different representations, including the number line
	To round two digit numbers to the nearest 10
Decimals and Money	To recognise and use symbols for pounds (£) and pence (p)
	To recognise the value of coins
	To use different coins to make the same amount
	To combine amounts of money to make a particular value
	To solve simple problems in a practical context involving addition and subtraction of money of the same unit
	To give change using money of the same unit
Fractions	To relate fractions to division (equal sharing) (40÷2=20 half of 40 is 20)
	To know that fractions are parts of a shape or quantity
	To recognise, name and write fractions: $^1/_3$, $^1/_4$, $^1/_2$, $^2/_4$, $^3/_4$
	To know that all parts must be equal parts of the whole
	To meet ¾ as the first example of a non-unit fraction
	To find ¼, ½ and $^1/_3$ of a length, shape, set of objects or quantity
	To write simple number sentences using fractions ($^1/_2$ of 6 =3)
	To find and compare fractions of amounts (e.g. 1/4 of £20 =£5 and 1/2 of £8 =£4 so 1/4 of £20 is greater than 1/2 of £8)
	To know that $^2/_4$ is equivalent to ½ (including when counting on a numberline)
	To count up to 10 in halves or quarters from different starting points
Measure	To use a range of measuring equipment with increasing accuracy (rulers, scales, thermometers and measuring vessels)
	To choose appropriate standard units to measure (using appropriate language and abbreviations)
	To read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given
	To read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given
	To measure: lengths/ heights (m/cm/mm); mass (kg/g); temperature (°c); capacity (l/ml) to the nearest unit
	To estimate: lengths/ heights (m/cm/mm); mass (kg/g); temperature (°c); capacity (l/ml) to the nearest unit
	To compare measures using simple multiples (twice a wide, half as heavy)
	To compare and order measures using >< and = (length, mass, volume/capacity)
	To read the time on the clock to the nearest 15 minutes
	To tell and write the analogue time to five minutes
	To read the time on the clock to the nearest 5 minutes
	To link divisions on a clock face to the 5 times table
	To know and use half, quarter past/to the hour and o'clock
	To draw the hands on a clock face to show times
	To compare intervals of time
	To sequence intervals of time
	To know the key time facts (number of minutes in an hour and the number of hours in a day)
Shape	**To recognise and name triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres (from a group of shapes or from pictures of the shapes)**
	To name and describe properties of common 2-D shapes (including quadrilaterals and polygons : vertices, sides and lines of symmetry)
	To describe similarities and differences in shape properties (E.g. 2 different 2d shapes have 1 line of symmetry, comparing cubes and cuboids)
	To compare and sort common 2-D shapes (including real-life objects)
	To draw 2-D shapes using a straight edge
	To recognise vertical lines of symmetry in simple 2-D shapes
	To identify 2-D shapes on the surface of 3-D shapes
	To name and describe properties of common 3-D shapes (including cuboids, prisms and cones : edges, faces, shape of faces, vertices)
	To identify simple properties of common 3-D shapes (number of edges, number of vertices and number of faces)
	To compare and sort common 3-D shapes (including real-life objects)
Angles	To understand angels in terms of a rotation
	To recognise quarter, half and three quarter turns
	To recognise clockwise or anti-clockwise rotations
	To recognise the link between a quarter turn and a right angle
	To use mathematical vocabulary to describe position, direction and movement, including movement in a straight line
Statistics	To ask and answer simple questions by counting the number of objects in each category
	To ask and answer simple questions by sorting categories by quantity
	To ask and answer questions about totalling data
	To ask and answer questions about comparing data
	To present and interpret data in simple tally charts
	To present and interpret data in simple tables
	To present and interpret data in simple pictograms
	To present and interpret data in simple block diagrams