

Mathematical aspect	Mathematical theme	National Curriculum statement
<p>Week 1</p>	<p>Number sense and arithmetic Number and place value: estimating, counting and comparing quantities Using recall of addition and subtraction facts and mental calculation strategies Using number sense, doubles and near doubles, adjustment, Rearranging strategies eg $74 - 47 = 74 (60 + 14)$ Reordering eg when adding three numbers Using partitioning and counting on strategies</p>	<ul style="list-style-type: none"> ● To count in steps of 2, 3, and 5 from 0, and count in tens from any number, forward or backward. ● To recognise the place value of each digit in a 2-digit number (tens, ones). ● To identify, represent and estimate numbers using different representations, including the number line. ● To compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs. ● To read and write numbers to at least 100 in numerals and in words. ● To use place value and number facts to solve problems. <p>To solve problems with addition and subtraction:</p> <ul style="list-style-type: none"> ● Using concrete objects and pictorial representations, including those involving numbers, quantities and measures ● Applying their increasing knowledge of mental and written methods. ● To recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. ● To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numbers. ● To show that addition can be done in any order (commutative) and subtraction cannot. ● To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.

Week 2	<p>Calculation: Addition and subtraction</p> <p>Strategy development for addition and subtraction</p> <p>Reordering calculation</p> <p>Bridging ten</p> <p>Partitioning strategies :</p> <p>Concrete, visual and number facts</p> <p>Inverse relationships</p> <p>Commutativity for addition and non-commutativity for subtraction</p>	<p>To solve problems with addition and subtraction:</p> <ul style="list-style-type: none"> ● Using concrete objects and pictorial representations, including those involving numbers, quantities and measures ● Applying their increasing knowledge of mental and written methods. ● To recall and use addition and subtraction facts to 20 fluently, ● To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers. ● To show that addition can be done in any order (commutative) and subtraction cannot. ● To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.
Weeks 3-4	<p>Multiplication and division:</p> <p>Repeated addition, arrays, Concept of repeated addition and the model of the array</p> <p>Grouping and sharing</p> <p>Concept of sharing and grouping model of the dividend Equals groups of</p> <p>Inverse relationships</p> <p>Concept of multiplication is communicative but division is non-communicative</p> <p>To read and write the symbols of \div and \times</p> <p>Odd and even multiples</p> <p>Using times tables facts to promote instant recall (Expected standard)</p> <p>Make deductions outside of known facts (GD) eg $16 \times 5 = 10 \times 5$ and 6×5</p>	<p>To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</p> <ul style="list-style-type: none"> ● To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs. ● To recognise and use the inverse relationship between multiplication and division in calculations. ● To show that multiplication of two numbers can be done in any order (commutative) and division for one number by another cannot. ● To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.

Week 5	All four operations: word problems Using addition, subtraction, multiplication and division Solving problems with missing numbers using bar model Balanced equations – understanding equality	To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. To recognise and use the inverse relationship between multiplication and division in calculations.
Weeks 6-8	Understanding fractions Understanding quarters, thirds, halves, two- quarters and three quarters of a number or shape and know that all parts must be equal parts of the whole. Understanding part and whole relationship Understanding equal parts. A third will always be smaller than a half when the whole is the same Halves, quarters, thirds of discrete quantities e.g half of four sweets Understanding simple equivalence eg $\frac{2}{4}$ is the same as one half using bar model Using bar model to develop understanding of fractions as a quantity. Using practical equipment to develop understanding of the different fractions. Understanding that a half can be smaller than a third when the whole is a different size.	To recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$. • To write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and one half.
Weeks 9 & 10	Measurement: Mass and capacity Standard units To be able to choose the right measuring equipment to measure a length of height The skills to reading the marked division with accuracy Understanding the marked division in any measuring context. Read scales in division of ones, two's fives and tens (EXP) Reading a scale where not all the divisions are marked (GP) Understanding that there are 100cm in 1 metre Knowing the mass is measurement in kg and grams Knowing the capacity is measurement in ml and litres	To choose and use appropriate standard units to estimate and measure length/ height in any direction (m/cm/mm); mass (kg/g); temperature ($^{\circ}\text{C}$); volume and capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels. To compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$.

<p>Weeks 11 & 12</p>	<p>Time Introducing the concept of measuring time – the clock The structure of the clock face. Understanding the position of the hands for o'clock and half past. Knowing that when the hour hand is half way between two numbers the minute hand will be in the 6 for half past. Understanding the position of the hands for quarter past and quarter to. Counting round the clock face in five minute intervals and then introduce the five minute interval Know the number of minutes in an hour and the number of hours in a day.</p> <p>Money Finding equivalent amounts Finding totals and giving change Use different coins to make the same amount</p>	<p>To tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.</p> <p>To find different combinations of coins to equal the same amount of money To solve simple problems in practical context involving additional and subtraction of money of the same unit including giving change.</p>
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