

Mathematical aspect	Mathematical themes	National Curriculum statement
Weeks 1-3	Number, place value and rounding Read, write and say numbers up to 4 digits To know the value of each digit on three/four-digit numbers Comparing and ordering numbers including negative numbers Rounding to the nearest 10, 100 and 1000. Expose rounding on a number line/ rule of 5 and above. Identifying the correct digit when rounding to the nearest 10, 100 or 1000 Rearranging the number eg $142 = 100 + 30 + 12$ (getting ready for exchange) To read Roman Numerals (Cross-curriculum learning)	To read, write and find numbers up to and beyond 1 000 To recognise negative numbers To understand place value in 3 and 4 digit numbers To compare numbers up to and beyond 1 000 To identify, represent and estimate numbers using different representations To round numbers nearest 10, 100 and 1000. To read Roman Numerals from 1 to 12 (clock face) To read Roman numerals to 100 (I to C) and I understand how numbers developed to include 0. (spend one day on this).
Weeks 4-7	Calculation and arithmetic of addition and subtraction Compliments to 100 (eg $20 + 80 = 100$, $67 + 33 = 100$) and all 2-digits numbers within 100 Application of appropriate mental strategies when the numbers are easy to manipulate $58 + 22 = 60 + 20$ Using rounding to check the reasonableness of the answer Understanding the columns Understanding the process of where to start and how to track through the written method No crossing of boundaries Crossing of boundaries (generating an exchanging digit)	To add and subtract numbers mentally. To estimate the answer to a calculation and use inverse operations to check answers To add and subtract numbers using columnar methods To estimate the answer to a calculation and use inverse operations to check answers To solve addition and subtraction problems
Autumn themes integrated into number: staircase project or fire and ice project (to be confirmed) Contextualised learning: look for opportunities within topic curriculum		

<p>Weeks 8-10</p>	<p>Multiplication and division: (These must be practiced daily throughout the year)</p> <p>Learn how to multiply and divide by 4's and 8's. Then 3's 6, and 9, 11 and 12. Then the 7's.</p> <p>Begin to understand mathematical vocabulary such as 'quotient' in relation to division.</p> <p>Calculate multiplication equations using the multiplication facts that they know.</p> <p>Apply tables knowledge in the context of place value eg $6 \times 7 = 42$ and 60×7 etc</p> <p>Understanding the relationships between the multiplication and division statements eg $6 \times 7 = 42$, $7 \times 6 = 42$ and $42 \div 7 = 6$</p> <p>Facts and mental to written methods</p> <p>Understand the difference between sharing and grouping</p> <p>Understand the commutative law in multiplication.</p> <p>Solve problems involving multiplication and division.</p>	<p>Recall multiplication and division facts for multiplication tables up to 12×12.</p> <p>Use place value, known and derived facts to multiply and divide mentally.</p> <p>Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods.</p> <p>Solve problems, including missing number problems, involving multiplication and division.</p>
<p>Weeks 11-12</p>	<p>Calculation and arithmetic : Multiplication and division</p> <p>Apply tables knowledge in the context of place value eg $6 \times 7 = 42$ and 60×7 etc</p> <p>Understanding the relationships between the multiplication and division statements eg $6 \times 7 = 42$, $7 \times 6 = 42$ and $42 \div 7 = 6$</p> <p>Facts and mental to written methods</p> <p>Mental strategies for partitioning for multiplication (96×6 could be 90×6 and 6×6)</p> <p>Mental strategies for rearranging for division ($96 \div 6$ could be partitioned into $60 \div 6$ and $36 \div 6$) distributive law</p> <p>Understanding multiplication as commutative</p> <p>Grid to short standard method</p> <p>Short division method backed up by models and images (refer to calculation on policy</p>	<p>To recall and use multiplication and division facts</p> <p>To write and calculate mathematical statements for multiplication and division, using facts and place value</p> <p>To recognise and use commutativity in mental calculations</p> <p>To use a formal written method for multiplication and division.</p> <p>To recognise and use commutativity in mental calculations</p> <p>To understand the effect of dividing a one- or two- digit number by 10 and 100</p> <p>To solve problems, including missing number problems, involving multiplication and division</p>