

| Mathematical aspect | Mathematical themes   | National Curriculum statement  |
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| Week 1              | <b>Calculation and arithmetic : Multiplication and division ( continued)</b><br>Apply tables knowledge in the context of place value<br>eg $6 \times 7 = 42$ and $60 \times 7$ etc<br>Understanding the relationships between the multiplication and division statements eg $6 \times 7 = 42$ , $7 \times 6 = 42$ and $42 \div 7 = 6$<br>Facts and mental to written methods<br>Mental strategies for partitioning for multiplication ( $96 \times 6$ could be $90 \times 6$ and $6 \times 6$ )<br>Mental strategies for rearranging for division ( $96 \div 6$ could be partitioned into $60 \div 6$ and $36 \div 6$ ) distributive law<br>Understanding multiplication as commutative<br>Grid to short standard method<br>Short division method backed up by models and images (refer to calculation on policy) | To recall and use multiplication and division facts<br>To write and calculate mathematical statements for multiplication and division, using facts and place value<br>To recognise and use commutativity in mental calculations<br>To use a formal written method for multiplication and division.<br>To recognise and use commutativity in mental calculations<br>To understand the effect of dividing a one- or two- digit number by 10 and 100<br>To solve problems, including missing number problems, involving multiplication and division |
| Weeks 2-4           | <b>Fractions: comparing and ordering and fractions as numbers (refer to fractions policy)</b><br>Understand the denominator as equal parts and the numerator as how many equals parts numerator<br>Understanding the whole and parts<br>Variety of models used to understand the structure of fractions<br>Developing understanding of denominator e.g the bigger the denominator the smaller the fraction  | To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators<br>To recognise and show equivalent fractions<br>To add and subtract fractions<br>To compare and order unit fractions, and fractions with the same denominators<br>To calculate fractions of quantities   |
| Weeks 5-7           | <b>Decimals</b><br>Learn about tenths and hundredths.<br>Be able to count, order and record the decimals in different ways.<br>Begin to see equivalence between tenths and hundredths.<br>Be able to compare and order the numbers.<br>Understand how to continue linear number sequences.<br>Round decimals to the nearest whole number.   | Recognise and write decimal equivalents of any number of tenths or hundredths.<br>Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>Compare numbers with the same number of decimal places up to 2 decimal places.  |

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|           | <p>Link tenths and hundredths with dividing by 10 and 100.</p> <p>Understand <math>\frac{1}{10}</math> is read as 1 tenth and 0.1 is also read as 1 tenth.</p> <p>Know that <math>\frac{1}{10} = 0.1 = 1</math> tenth.</p> <p>Have a good understanding of the base-10 number system.</p> <p>Be able to relate 1 tenth to 1 part out of 10 equal parts of 1.</p> <p>Know that there are ten 0.1 in 1.</p> <p>Know that 1 is 10 times as much as 0.1.</p> <p>Understand the role of zero as a placeholder.</p> <p>Be able to relate 1 hundredth to 1 part out of 100 equal parts of 1.</p> <p>Be able to relate 1 hundredth to <math>\frac{1}{100}</math>.</p> <p>Be able to relate 1 hundredth to 0.01.</p> <p>Relate that 1 hundredth = <math>\frac{1}{100} = 0.01</math>.</p> <p>Know that there are ten 0.01 in 0.1.</p> <p>Know that 0.1 is 10 times as much as 0.01.</p> <p>Identify hundredths using decimals.</p>                                   | <p>Round decimals with 1 decimal place to the nearest whole number.</p> <p>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math>.</p> <p>Solve simple measure and money problems involving fractions and decimals to 2 decimal points</p>  |
| Week 8-10 | <p><b>Money</b></p> <p>Count and record in pounds and pence. Count amounts of money to find the total. Write money in pounds using decimal notation</p> <p>Make links between tenths and hundredths and decimal notation for money.</p> <p>Compare amounts of money by looking at significant digits and by converting amounts from pounds to pence and vice versa.</p> <p>Round money to the nearest pound and understand contexts in which this would be a useful skill to know.</p> <p>Estimate amounts and totals.</p> <p>Apply these skills to problem-solving situations, finding totals and calculating change.</p> <p>Visualise a money problem using a bar model and begin to explore unequal sharing in the context of money.</p> <p>Know the relative values of different coins.</p> <p>Know that <math>10 \times 10p = £1.00</math>.</p> <p>Understand the equivalence between 10p and £0.1.</p> <p>Record multiples of 10p as a fraction.</p> | <p>To measure, compare and convert between units of measure</p> <p>To calculate amounts of money</p> <p>Calculate different measures, including money in pounds and pence</p> <p>Estimate, compare and calculate different measures, including money in pounds and pence.</p> <p>Add and subtract amounts of money to give change, using both pounds and pence in practical contexts</p> |

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| <p>Weeks 11-12</p> | <p><b>Measurement: Mass volume and length</b><br/> Estimate and measure mass, volume and length.<br/> Understand how to convert units of measure from larger to smaller and vice versa.<br/> Link measuring length to perimeter using centimetres and millimetres.<br/> Practical context.<br/> Solve problems involving all three aspects of measurement.<br/> Know the relative values of kilograms and grams.<br/> Convert compound units to decimals.<br/> Identify the 2 whole numbers in kilograms that the mass lies between.<br/> Mark the mass correctly on the number line.<br/> Round the mass to the nearest whole kilogram.<br/> Accurately read the mass from the scale.<br/> Be aware of misconceptions such as: 1 kg is 100 g or 0.5 kg is 5 g.<br/> Identify the value of the markings on the scale.<br/> Read the scales.<br/> Read volume in litres.<br/> Write volume in litres using decimals. Apply what they know about fractions and decimals to litres.<br/> Indicate volume on a scale.<br/> Understand that 1000 ml = 1 l.<br/> Convert between millilitres and litres.<br/> Approximate volume to the nearest litre and 100ml<br/> Know the relative values of centimetres and metres.<br/> Convert between centimetres and metres.<br/> Visualise length using part of a ruler/height chart<br/> Apply their understanding of fractions and decimals to metres and centimetres.<br/> Identify the length represented by each interval on the scale.<br/> Know that 10 cm = 0.1 m.<br/> Know that 1 cm = 0.01 m.<br/> Understand centimetres as a fraction of a metre.<br/> Measure height in metres using a measuring tape.</p> | <p>Convert between different units of measure.<br/> Estimate, compare and calculate different measures<br/> Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. Convert between different units of measure.</p> |
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|  | <p>Write height in metres as a decimal.</p> <p>Write height in metres as a mixed number</p> |  |
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