



## Medium Term Plans for Mathematics (revised version) - Year Four (Summer Term)

<p><b>Number</b></p> <p>Decimals (and place value)</p> <p><b>Week 2</b></p>	<p>5</p>	<p>Consolidate the connection between <b>tenths</b> and <b>hundredths</b>; recognise that hundredths arise when dividing an object by 100 and when dividing tenths by ten (consider using a blank hundred square, Dienes and/or a place value chart to support )</p> <p>Recognise and write decimal equivalents of any number of tenths or hundredths e.g. <math>4/10 = 0.4</math> and <math>35/100 = 0.35</math></p> <p>Use <b>decimal notation</b> (to two decimal places); link decimal notation to money and length</p> <p>Recognise that <math>1/4 = 0.25</math>, <math>1/2 = 0.5</math> and <math>3/4 = 0.75</math> (consider using a blank 100 square to support understanding)</p> <p>Recognise the place value of each digit in a decimal number with up to two decimal places (tenths, hundredths)</p> <p>Partition decimal numbers; use place value cards and/or place value charts to support e.g. <math>85.75 = 80 + 5 + 0.7 + 0.05</math></p> <p>Round decimal numbers with one decimal place to the nearest whole number</p> <p><b>Begin</b> to round decimal numbers with two decimal places to the nearest whole number (initially in the context of money or measures) e.g. round £46.25 to the nearest whole pound</p> <p><b>Reason</b> about decimal numbers e.g. a decimal number with one decimal place rounded to the nearest whole number is 145. What is the largest/smallest number it could be?</p> <p>Compare and order decimal numbers with up to two decimal places; relate to money and measures e.g. put these amounts of money in order from least to most: £11.50, £10.00, £5.05, £11.05, £5.50; put these lengths in order from longest to shortest: 12.25m, 10.57m, 12.52m, 12.05m, 10.75m</p>	<p>Partition, Place value Digit, number, decimal tenth, hundredth</p> <p>Decimal notation, decimal place</p> <p>Round</p> <p>Order Compare More than, greater than, less than, &lt;, &gt;</p>
<p><b>Number</b></p> <p>Addition and Subtraction</p> <p><b>Week 3</b></p>	<p>5</p>	<p><b>Consolidate</b> using the formal written method of addition to add two three-digit numbers; a three- digit number and a four-digit number; two four-digit numbers</p> <p>Use the formal written method to add decimal numbers, in the context of money or length <b>(See Calculation Policy)</b></p> <p><b>Consolidate</b> using formal written method of subtraction to subtract a two-digit number from a three-digit number; a three- digit number from a three- digit number; a three digit number from a four-digit number; a four-digit number from a four-digit number</p> <p>Use the formal written method to subtract decimal numbers, in the context of money or length <b>(See Calculation Policy)</b></p> <p>Solve addition and subtraction one-step and two-step word problems (including money and measures problems), deciding which operations to use e.g. There are 1,245 girls and 1,326 boys at the safari park. How many children are at the safari park altogether? If 545 children leave at lunch time, how many children will still be there? I have £14.75 but my brother has £2.80 more than me. How much money does he have? If he spends £2.25 how much money will he have left?</p>	<p>Digit Hundreds, tens, ones/units</p> <p>Formal written method Calculate, calculation Problem, solution</p>

## Medium Term Plans for Mathematics (revised 2016) - Year Four (Summer Term)

<p><b>Number</b></p> <p>Multiplication and division</p> <p>(Mental Methods)</p> <p><b>Week 4</b></p>	<p>5</p>	<p>Multiply and divide numbers by ten and one hundred (including numbers/answers with one decimal place) e.g. <math>9 \times 100 = 900</math>; <math>42 \times 10 = 420</math>; <math>3.5 \times 100 = 350</math>; <math>520 \div 10 = 52</math>; <math>45 \div 10 = 4.5</math>; <math>460 \div 100 = 4.6</math>; describe the effect using the language of place value and the movement of the digits</p> <p>Use known multiplication and division facts to derive other facts e.g. <math>7 \times 4 = 28</math> so <math>70 \times 4 = 280</math>; how would <math>6 \times 7 = 42</math> help you to calculate <math>6 \times 14</math>?</p> <p>Find a factor pair of a given number e.g. 6 and 9 are a factor pair of 54; 5 and 8 are a factor pair of 40</p> <p>Begin to find <b>all</b> factor pairs of a given number</p> <p>Recognise and use factor pairs in <b>mental calculations</b> to multiply three numbers together e.g. <math>2 \times 6 \times 5 = 10 \times 6 = 60</math>; <math>3 \times 7 \times 4 = 12 \times 7 = 84</math></p> <p>Use the distributive law/partitioning method to calculate <b>mentally</b> (with jottings), e.g. <math>34 \times 7 = (30 \times 7) + (4 \times 7) = 210 + 28 = 238</math>; <math>78 \div 6 = (60 \div 6) + (18 \div 6) = 10 + 3 = 13</math></p> <p>Solve integer scaling problems, e.g. When I was born I was 48cm long. Now I am three times as tall. How tall am I?</p> <p>Solve correspondence problems, encouraging children to work systematically, to record results in a clear and organised way, to identify patterns/rules, to make predictions. Consider using the problem <b>'Cobi's Cones'</b></p>	<p>Place value, digit, decimal place</p> <p>Mental methods</p> <p>Factor pairs</p> <p>Partition</p> <p>Integer scaling</p> <p>Problem, solution, table, patterns, rules</p>
<p><b>Number</b></p> <p>Multiplication</p> <p><b>Week 5</b></p>	<p>5</p>	<p>Count in multiples of 11 and multiples of 12, forwards and backwards (consider as mental/oral starters)</p> <p>Recall and use multiplication facts for the 11 times table; look at patterns in the 11 times table</p> <p>Recall and use multiplication facts for the 12 times table; look at patterns in the 12 times table (Consider the use of a multiplication grid to look for patterns in all multiplication tables)</p> <p>Write and calculate mathematical statements for multiplication using 11 and 12 times tables (and other known tables); include multiplying by 0; solve missing number problems</p> <p>Use the <b>formal written method of short multiplication</b> to multiply a two - digit number by a single digit number e.g. <math>37 \times 8 = 296</math>; <b>extend</b> by multiplying a three-digit number by a single-digit number e.g. <math>245 \times 6 = 1,470</math> (<b>See Calculation Policy</b>)</p> <p>Solve word problems, which involve multiplication e.g. How many hours are there in a week? How many days are there in three years (not leap years)?</p> <p>There are 32 cherries in a punnet. I have 8 punnets of cherries. How many cherries do I have altogether?</p> <p>There are 125 paper clips in a box. I have 6 boxes. How many paper clips do I have altogether?</p>	<p>Multiply, multiplication, times, product</p> <p>Partition, value, tens, ones/units</p> <p>Multiplication grid</p> <p>Formal method of short multiplication</p> <p>Calculation</p> <p>Problem, solution</p>



## Medium Term Plans for Mathematics (revised 2016) - Year Four (Summer Term)

<p><b>Measurement</b></p> <p>Time &amp; Money</p> <p><b>Week 8</b></p>	<p>3</p> <p>2</p>	<p><b>Consolidate</b> writing and telling the time to the nearest 1 minute using an analogue clock and digital clock (12 hour); continue to use noon/midday, midnight, a.m. /p.m. Convert between 12 hour digital clocks and 24 hour digital clocks e.g. What time on the 12 hour clock is 17:45? What time on the 24 hour clock is 11:15 pm?</p> <p>Use simple charts to solve time problems e.g. Use a newspaper TV guide to calculate how long each programme lasts</p> <p>Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days e.g. How many days are there in 6 weeks? It takes me ten minutes to walk to school- how many seconds is this? I sleep for eight hours. How many minutes is this? How many months in 9 years?</p> <p>Use decimal notation to record money and convert between pounds and pence e.g. 545p = £5.45; £8.04 = 804p; £12.50 = 1250p</p> <p>Order amounts of money, using knowledge of decimal place value to support e.g. put these amounts of money in order from smallest to largest- £185.50, £158.45, £185.05, £158.50, £180.50</p> <p>Solve problems/investigations involving money e.g. In my purse I have some 50p coins, some £1 coins and some 5p coins. Altogether I have ten coins. How much money have I got? How many different solutions can you find?</p> <p>Solve one-step and two- step word problems in the context of money</p>	<p>All relevant vocabulary from previous years relating to time including: 24 hour digital clock</p> <p>Problem, solution</p> <p>Pound (£), pence (p) Solutions</p>
<p><b>Measurement</b></p> <p>Perimeter and Area</p> <p><b>Week 9</b></p>	<p>5</p>	<p>Measure the <b>perimeter</b> of rectilinear shapes using cm and m Calculate the perimeter of rectilinear shapes (where the length of the sides is given). Express the formula for finding the perimeter of a rectangle in words e.g. Tom found the perimeter of a rectangle by measuring the length and the width, adding these two measurements together and doubling his answer. Was he right?</p> <p>Solve problems relating to perimeter e.g. the perimeter of a square is 28cm. What is the length of one side? Draw two rectangles with the same perimeter as this square.</p> <p>Find the <b>area</b> of rectangles by counting squares; use the notation for square centimetres (cm<sup>2</sup>); find area of rectangles by relating to arrays and multiplication</p> <p>Solve problems involving area and perimeter e.g. Draw a rectangle with an area of 24 cm<sup>2</sup> and a perimeter of 28 cm. Can you find any other rectangles with the same area?</p>	<p>Perimeter, cm, m</p> <p>Area Square centimetres, cm<sup>2</sup></p>

## Medium Term Plans for Mathematics (revised version) - Year Four (Summer Term)

<p><b>Geometry</b></p> <p>Properties of shapes</p> <p><b>Week 10</b></p>	<p>5</p>	<p>Identify whether angles are greater or less than a right angle using the terms <b>acute</b> and <b>obtuse</b> (angles); identify angles in regular and irregular polygons as acute, obtuse or right angles: compare and order angles (up to two right angles/180° by size)</p> <p>Name, compare and classify polygons, including special triangles and special quadrilaterals Distinguish between regular and irregular polygons based on equal angles and equal sides</p> <p>Identify all lines of symmetry in polygons and in other images, for example capital letters, flags Complete a symmetrical drawing or figure, including where the line of symmetry doesn't dissect the original shape/figure</p> <p>Reason about shapes e.g. What is the same about these quadrilaterals? What is different? All quadrilaterals have at least one line of symmetry. True or false? Convince me!</p>	<p>Angle, right-angle, acute, obtuse Polygon Regular, irregular</p> <p>All special triangles and quadrilaterals from previous terms</p> <p>Lines of symmetry, symmetrical, non-symmetrical</p>
<p><b>Geometry</b></p> <p>Position and Direction</p> <p><b>&amp;</b></p> <p><b>Statistics</b></p> <p>Data Handling</p> <p><b>Week 11</b></p>	<p>2</p> <p>3</p>	<p>Describe positions on a 2-D grid as co-ordinates in the <b>first quadrant</b> e.g. (2,3); plot specified points using co-ordinates in the first quadrant; draw sides to complete a given polygon using co-ordinates in the first quadrant</p> <p>Describe movements of shapes between positions as <b>translations</b> of a given unit to the left/right and up/down; describe the new position using co-ordinates</p> <p>Interpret and present <b>discrete</b> data using appropriate graphical methods including bar charts, <b>using a greater range of scales</b> e.g. 2, 5, 10, 20, 25 Solve comparison, sum and difference problems using information presented in bar charts, tables and tally charts</p> <p>Interpret and present <b>continuous</b> data using time graphs, with a range of scales, and relate to recording change over time</p> <p>Follow a line of enquiry e.g. <b>linked to the science curriculum</b>; collect data from their own observations and measurements, make decisions about how to record, present and analyse the data</p>	<p>Co-ordinates, first quadrant</p> <p>Translation, translate, left, right, up, down</p> <p>Discrete, continuous, data, scale Bar charts, tables, tally charts, time graphs</p>

## Medium Term Plans for Mathematics (revised 2016) - Year Four (Summer Term)



<p><b>Measurement</b></p> <p>Length, Mass and Capacity</p> <p><b>Week 12</b></p>	<p>5</p>	<p>Consolidate understanding of measures and know the relationship between units of measurement including <b>kilometres</b> to metres; make estimates of measurements and choose and use suitable equipment and units of measure in practical situations; read a range of scales</p> <p><b>Solve problems</b> involving length, mass, capacity, e.g.                  A full jug holds 2 litres of orange juice. A full glass holds 1/4 litre. How many glasses will the jug fill?                  On Monday I cycled 13.5km. On Tuesday I cycled 25km. How far did I travel altogether?                  A potato weighs about 250g. How much do 10 potatoes weigh, approximately?                  Here is a recipe for 6 people. Change the ingredients to make enough for 12 people.</p> <p><b>Investigate</b> statements relating to measurement, e.g. People with longer arms can throw a ball further. True or false? How will you find out?</p>	<p>Weight, mass, measure Kilograms, kg, grams, g</p> <p>Capacity, measure Litre, l, millilitre, ml</p> <p>Length, height, distance, km, kilometres, cm, centimetre, m, metre, mm, millimetre</p>
<p><b>Additional weeks</b></p> <p>To be used for:</p> <ul style="list-style-type: none"> <li>• assessment, consolidation and responding to AfL</li> <li>• additional using and applying activities</li> </ul>			