

Year 2 Medium Term Plan Maths

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 |
|------------------------------------|--|--|--|--|---|---|---|---|
| | Number sense As part of starter activities count in steps of 2, 3 and 5 forwards and backwards from and to zero and 10s from any number and fraction steps ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$) and steps that help children with mental calculation strategies such as 50 and 100. Link to linear number sequences e.g. 3, 6, 9, ?, ? and 20, 30, 40, ?, ? Several times a week work on telling the time with clocks and rehearsing mental calculation strategies. With time focus on minutes past and relate to 5x table: 10 minutes past, 40 minutes past etc., finding these times on a clock face. Minutes in an hour and hours in a day | | | | Additive Reasoning | | | |
| Term 1 Under the Sea | Place Value 10s and 1s Place Value Grids & Digit cards Gettegno charts Zero as place holder | Link to measurement- practical activities with mass capacity & vice versa Ordering and comparing, Greater than, less than, equals (using symbols as described in plan), rounding | Fractions – whole part relationships (birds and faces), link to division. Correct vocabulary Problem solving using bar model throughout Focus on halves and quarters. Take each fraction one at a time and explore that fraction of numbers, quantities and | Focus on thirds as with halves and quarters. Problem solving using bar model throughout | Mental Calculation – partitioning, sequencing, doubling, halving, near doubles, number pairs, multiples of 10 and adjusting, using known number facts, bridging through 10, counting on and | Working towards the written method for addition and subtraction in Year 3 Correct vocabulary: addend + addend = sum Use subtraction as a check for addition and each time discuss | Working towards written method for subtraction in Year 3 Correct vocabulary: minuend – subtrahend = difference Use addition as a check and discuss (using Dienes) the fact that subtraction | Reinforcing and picking up on what hasn't been covered in previous two weeks. Teaching the two in the same week to ensure that the children see the links between |

Year 2 Medium Term Plan Maths

| | | | | | | | | |
|--|--|--|--|--|---|--|--|--|
| | | | <p>shapes (where shapes have fractions shown that are not the same shape) at the same time. Look at equivalences between halves, and quarters.</p> | | <p>counting back Time differences and durations. Bar charts and pictograms Missing whole number problems linking to algebra</p> | <p>commutativity, e.g. $23 + 4 = 4 + 23$, same answer different calculation Focus on - digit numbers + ones, 2-digit numbers + 10s. Record horizontally. Use Dienes and money (10p and 1p) to help develop a conceptual understanding. Introduce the idea of exchange. Links to measure – measuring strips of paper and finding differences Bar modelling to make links between + and -</p> | <p>isn't commutative. Focus on 2-digit – ones, 2-digit – 10s. Record horizontally. Use Dienes and money (10p and 1p) to help develop conceptual understanding Introduce the idea of exchange. Links to measure – measuring strips of paper and finding differences Bar modelling to make links between + and -</p> | <p>them. Within different contexts</p> |
|--|--|--|--|--|---|--|--|--|

Year 2 Medium Term Plan Maths

| | Multiplicative Reasoning | | | | | Geometric Reasoning | | |
|---|---|---|--|--|---|--|--|--|
| <p>Term 2</p> <p>Great Fire of London</p> | <p>Mental calculation strategies, multiplication facts for 2, 5 and 10 Focus on commutativity : same answer, different calculation, so that children begin to learn that is they know $7 \times 5 = 35$ they also know that $5 \times 7 = 35$. Do this for all tables' facts. Doubling and halving, using known facts from tables, multiplying and dividing by ten: digits 10 times bigger or smaller</p> | <p>Arrays for multiplication: grouping model Repeated addition not number line work at this stage, practical. Introduce vocabulary: multiplicand x multiplier = product Focus on single digit x single digit arrays. Use ones cubes and pennies, exchanging ten ones for a ten. Record horizontally Commutativity</p> | <p>Arrays for division: Grouping model Repeated subtraction not number line, practically making arrays. Introduce vocabulary: dividend \div divisor = quotient. Explore the arrays with answers to multiplication tables they need to know, e.g. array of 18 counters set out in rows of 2, $18 \div 2 = 9$ and then the other way round, $18 \div 9 = 2$</p> | <p>Linking division and fractions: sharing model Sharing between 2, 5 and 10. What is different and what is the same about this and grouping? When doing this link to, for example $20, \frac{1}{2} = 10, \frac{1}{5} = 4, \frac{2}{5} = 8$ etc. and $\frac{1}{10} = 2, \frac{2}{10} = 4$ etc.</p> | <p>Scaling up and scaling down. Link to doubling and fractions. Work within the context of measure – half as much, 4 times as much, a quarter of the size etc.</p> | <p>3D shape: using plasticine to make sphere, cube, cuboid, exploring what doing to get each new shape. Discuss their properties including naming face shapes. Explore cones, cylinders, pyramids and triangular prisms exploring their properties. Cones have a face, curved surface and apex. Sorting activities including Venn and Carroll diagrams</p> | <p>2D shape: Use drawings on paper. Begin with three sided shapes, all are triangles. Look at equilateral triangle as regular. Repeat this with rectangles: four sides and four right angles. Square is regular. Repeat for pentagons and hexagons. Plenty of pattern making and sorting (include circles)</p> | <p>Using vocabulary to describe position and direction. Activities that involve describing these. Practical activities to explore movement in a straight line and in different directions.</p> |

Year 2 Medium Term Plan Maths

| | Number Sense | | | | Additive Reasoning | | | |
|--|--|--|--|-------------------------------|--|--|--|---|
| <p>Term 3</p> <p>Transport</p> | <p>Place Value as in term 1</p> <p>Ask questions such as what is one/ten more/less</p> <p>Solving missing number problems and linking to algebra</p> <p>Link place value practically to money and length</p> | <p>Continuation of previous week, practically, within context of mass, capacity and volume</p> | <p>Fractions of different things (shape, quantities, money, numbers etc.)</p> <p>Equivalences between whole, $\frac{1}{2}$ and $\frac{1}{4}$ using strips of paper, simple addition number statements, e.g. $\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$, $\frac{1}{2} + \frac{1}{4} + \frac{1}{4} = 1$</p> <p>Explore thirds in a similar way.</p> <p>Problem solving with fractions using the bar model</p> | <p>ASSESSMENT WEEK</p> | <p>Mental calculation strategies as in Term 1, picking up on any that weren't covered, linking to time differences and durations and money</p> | <p>Reinforce, rehearse and consolidate addition of 2-digit + ones, 2-digit + 10s</p> <p>Focus on 2-digit + 2-digit using equipment with horizontal recording.</p> <p>Continue to develop the concept of exchange</p> <p>Exchange</p> <p>Link to money, frequency tables, bar charts and pictograms (use these as a starting point)</p> | <p>Reinforce, rehearse and consolidate subtraction of 2-digit – ones, 2-digit – 10s</p> <p>Continue to develop the concept of exchange</p> <p>Link to money, frequency tables, bar charts and pictograms (use these as a starting point)</p> | <p>Reinforcing and picking up on what hasn't been covered in previous two weeks. Teaching the two in the same week to ensure that the children see the links between them.</p> <p>Within different contexts</p> |

Year 2 Medium Term Plan Maths

| | Multiplicative Reasoning | | | | | Geometric Reasoning | | |
|---|--|--|---|---|--|--|---|---|
| <p>Term 4</p> <p>Food</p> | <p>Mental Calculation as in term 2 in different contexts for example money and length</p> <p>Introduce multiplying by 5 by multiplying by 10 and halving. Ensure the children understand the relationship between 5 and 10</p> <p>Begin to represent multiplication facts on a number line</p> | <p>Introduce the 3x table by counting in steps of three, linking to commutativity</p> <p>Explore odd and even numbers using Numicon, odd number is an even number +/- one.</p> <p>Explore what happens when you add two even numbers, two odd numbers, an even and an odd number.</p> <p>Explore multiplying an even number by 2, 5 and 10.</p> <p>Explore multiplying an odd number by 2, 5 and 10. Can they make generalisations</p> | <p>Reinforce and rehearse Term 2 – arrays for single digit by single digit. Include 3 as the multiplier.</p> <p>Division as a check for the multiplication</p> <p>Begin 2-digit x single digit again as arrays</p> <p>Statistics- pictograms and bar graphs with symbols and divisions with multiples of 2, 5 and 10 etc.</p> | <p>Reinforce and rehearse Term 2 Division – arrays for multiplication facts. Include 3x facts</p> <p>Multiplication as a check for the division</p> | <p>Scaling up and scaling down as in term 2 within the context of measures.</p> <p>Select those measures that have been covered less often than others</p> <p>Linking into $\frac{1}{2}$ and $\frac{1}{4}$, doubling and doubling again.</p> | <p>3D shape: making different shapes using polydron type apparatus. Exploring boxes to see if they can make them out of card. Using a cuboid, cube, pyramid or triangular prism, give opportunities to make one out of card.</p> <p>Sorting activities including Venn and Carroll diagrams</p> | <p>2D shape: Explore symmetry on different 2D regular and irregular shapes. Making symmetrical patterns across horizontal, vertical and diagonal mirror lines. Numicon is good for this. Identifying right angles in the environment and on the shapes they have explored</p> <p>Again sorting activities using Venn and Carroll diagrams</p> | <p>Practical exploration of rotation as a turn in terms of right angles. These should be quarter, half and three quarter. Link to fractions as the children make turns in clockwise and anticlockwise directions.</p> |

Year 2 Medium Term Plan Maths

| | Number Sense | | | Additive Reasoning | | | | |
|---|---|---|--|---|---|---|--|--|
| <p>Term 5</p> <p>Night-time</p> | <p>Place Value as in Term 1 and Term 3</p> <p>Introduce 100s (place value grids and Gattegno charts)</p> <p>Link to measurement-practical activities with mass, capacity & volume</p> <p>Ordering and comparing, rounding Greater than, less than, equals</p> | <p>Continuation of previous week with money (£1, 10p, 1p), length (1m, 10cm, 1cm) and temperature</p> | <p>Fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ and thirds</p> <p>Addition and subtraction of simple fractions with the same denominator and simple equivalences – very practically</p> <p>Counting in $\frac{1}{2}$s, $\frac{1}{4}$s and $\frac{1}{3}$s.</p> | <p>Consolidation of mental calculation strategies within different contexts, including time</p> | <p>Consolidation of addition of 2-digit + ones, 2-digit + 10s, 2-digit + 2-digit within different contexts</p> <p>Teach vertical partitioning layout in preparation for year 3.</p> <p>Continue with exchange</p> | <p>Consolidation of subtraction of 2-digit – ones, 2-digit – 10s within different contexts</p> <p>Focus on 2-digit – 2-digit using Dienes with exchange</p> | <p>Reinforcing and picking up on what hasn't been covered in previous two weeks. Teaching the two in the same week to ensure that the children see the links between them.</p> <p>Within different contexts</p> <p>Give plenty of opportunities for exchange</p> | |

Year 2 Medium Term Plan Maths

| | Multiplicative Reasoning | | | | | Geometric Reasoning | | |
|--|---|---|---|--|---|---|---|---|
| <p>Term 6</p> <p>Castles</p> | Consolidation of mental calculation strategies as Terms 2 and 4 | Consolidation of arrays with single digit x singles digit and 2-digit x singles digit within context of measures and statistics | Consolidation of grouping using arrays with 2-digit numbers e.g. make array for 15 x 3. Product 45, corresponding division from this array will be $45 \div 15 = 3$ (groups of 15). Stress that we also know that $45 \div 3$ will be 15. Include remainders As always do this within context as Term 4 | Consolidate sharing from term 2, making the links to fractions and the multiplication tables you are working on. | Consolidation of scaling up and scaling down linking in with $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ and doubling, doubling and doubling again and multiplying by three | Consolidation of 3D shape including problem solving | Consolidation of 2D shape including problem solving | Consolidation of position, direction and movement including problem solving |