|  |  |
| --- | --- |
| **Jericho Primary School -Calculation Policy – Division – Year 1** | |
| Mental Calculations | **Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.**   * Count in multiples of twos, fives and tens with equipment, songs, rhythms and including by rote. * Counting 2s e.g. counting socks,shoes, animal legs... * Counting in 5 s e.g. counting fingers, fingers in gloves, toes … * Counting in 10s e.g. counting fingers, toes... * Halves up to 20. * Write as a number pattern(e.g. 5, 10, 15...; 2, 4, 6...; 10, 20, 30...) |
| Written calculation | **Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.**   * Children should experiment with the concept of grouping and sharing in a range of contexts.      * It would be beneficial if children could see the relationships between multiplication and division. * Children could be introduced to the concept of division as repeated subtraction eg 15 – 5 - 5 - 5 = 0 |
| Representations  to support calculations | Golden Nugget representations:    Other representations: |
| **Jericho Primary School -Calculation Policy – Division – Year 2** | |
| Mental Calculations | **Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, connecting the 2, 5 and 10 multiplication tables to each**  **other.**  -Connect the 10 multiplication table to place value.  - Use a variety of language to describe multiplication and  division.  -Apply halving of numbers up to 20 to halving larger  numbers. |
| Written calculation | **Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals(=)signs.**   * Begin to use other multiplication tables and recall facts to perform written calculations.      * Solve problems involving multiplication and division, using materials, arrays, repeated subtraction, mental methods, and multiplication and division facts, including problems in contexts. |
| Representations  to support calculations | Golden Nugget representations:      Other representations: |

|  |  |
| --- | --- |
| **Jericho Primary School -Calculation Policy – Division – Year 3** | |
| Mental Calculations | **Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables (and 2, 5 and 10 multiplication tables from Y2).**  -Use halving to connect 2, 4 and 8 multiplication tables.  -Develop efficient mental methods using commutativity and  associativity.  -Derive related multiplication and division facts.  -Calculate mathematical statements for division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental methods.  -Partitioning: divide the tens first and then divide the units, e.g. = 96 ÷ 3 = 90 ÷ 3 = 30 and 6 ÷ 3 = 2 so answer is 32.  -Children can apply these skills to solve spoken word problems too, include missing number statements e.g. 560 ÷ \_\_\_= 70 |
| Written calculation | **Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, progressing to formal written methods.**   * Estimate before calculating. * Ensure written methods build on/relate to mental methods.     Focus on tens and ones method with and without remainders. |
| Representations  to support calculations | Golden Nugget representations:      Other representations: |

|  |  |
| --- | --- |
| **Jericho Primary School -Calculation Policy – Division – Year 4** | |
| Mental Calculations | **Recall multiplication and division facts for multiplication tables up to 12 x 12.**   * Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. * Recognise and use factor pairs and commutativity in mental calculations. * Practise mental methods and extend this to three-digit numbers to derive facts, (for example 600 ÷ 3 = 200 can be derived from 6 ÷ 3 = 2). |
| Written calculation | **Divide two-digit and three-digit numbers by a one-digit number using formal written layout.**   * All children need to be able to use the bus stop method for short division. * Estimate before calculating. * Ensure written methods build on/relate to mental methods.      * By the end of Year 4, children need to have encountered remainders in a number of contexts. |
| Representations  to support calculations | Golden Nugget representations:      Other representations: |

|  |  |
| --- | --- |
| **Jericho Primary School -Calculation Policy – Division – Year 5** | |
| Mental Calculations | **Multiply and divide numbers mentally drawing upon known facts**   * Multiply and divide whole numbers and those involving decimals by 10, 100 & 1000.   - Recognise and use square & cube numbers (& notation).  - Use factors and multiples as connected ideas: 48 is a multiple of 6 and 6 is a  factor of 48.   * Find all factor pairs of a number and common factors of two numbers. * Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. * Establish whether a number up to 100 is prime and recall prime numbers up to 19. * Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. |
| Written calculation | **Divide numbers up to 4 digits by a one- or two-digit number using a formal written method, including short division and interpret remainders appropriately for the context.** |
| Representations  to support calculations | Golden Nugget representations:      Other representations: |

|  |  |
| --- | --- |
| **Jericho Primary School -Calculation Policy – Division – Year 6** | |
| Mental Calculations | **Perform mental calculations, including with mixed operations and large numbers.**   * identify common factors, common multiples and prime numbers * use their knowledge of the order of operations to carry out calculations involving the four operations |
| Written calculation | **Divide numbers up to 4 digits by a one- or two-digit number using a formal written method, including long division for two-digit numbers and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.** |
| Representations  to support calculations | Golden Nugget representations:      Other representations: |