|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learners are able to:**  **Use number skills**    **Calculate using mental and written methods** | **Nursery**   * Understand and use the concept of ‘one more’ in their play * Understand and use the concept of ‘one less’ in their play * **Use counting to solve simple mathematics problems in everyday and play situations** | **Reception**   * **Mentally recall ‘one more’ of a number within 10** * **Mentally recall ‘one less’ of a number within 10** * Combine two groups of objects to find ‘how many altogether?’ * Take away object to find ‘how many are left?’ * **Solve simple problems in a practical situation that involve simple addition and subtraction up to 5** * Talk about addition and subtraction instructions in play activities | **Year 1**   * **Mentally recall ‘one more’ of a number within 20** * **Mentally recall ‘one less’ of a number within 20** * Use ‘counting on’ strategies to add two collections, starting with the larger number *e.g. 8 + 5* * Add and subtract numbers involving up to 10 objects * **Use a range of strategies to mentally solve problems within 10** * **Solve one-step problems that involve addition and subtraction, including missing number problems, *e.g.7+ € = 9,* usingconcrete objects and pictorial representations** * **Use known facts to solve simple problems within 10 e.g. *doubling and halving, number bonds*** * Use known number facts when adding three single digit numbers and realise addition can be done in any order * Understand and use the mathematical symbols for addition, subtraction and equals * Understand and use the different mathematical terms for addition and subtraction e.g. *add, combine, find the difference* | **Year 2**   * **Mentally add 10 or 20 to a given number up to 100** * **Mentally subtract 10 or 20 from a given number up to 100** * Find small differences within 20 by using ‘counting on’ strategies * Mental recall of number facts to 10 and place value to add or subtract larger numbers *e.g.*   *24 + 4, 30 + 5, 34 +10*   * **Find a small difference between two numbers by counting on, *e.g. 44 – 28 = €*** * **Solve one- and two-step problems that involve addition and subtraction, multiplication and simple division including missing number problems *e.g. 40 - € = 19*** * **Use partitioning strategies to double and halve 2-digit numbers** * Understand that multiplication is repeated addition *e.g. 2 + 2 + 2 is the same as ‘three twos’* * Add/subtract 9 or 11 from given number by adding/subtracting 10 and adjusting * Understand and use mathematical symbols for addition, subtraction, multiplication, division and equals * Understand and use the different mathematical terms for addition, subtraction, multiplication, division and equals *e.g. find the total, share, goes into* |
|  | Addition   * Count in steps up to 10/20, identifying the next number * Count one more by adding one * Bring together a set of objects to add them. Combine two groups * Introduce counters to represent objects * Combine 2 groups * Find the total of 2 groups (how many altogether) * Add by adding to a number of objects * Bring 3+ groups together * Introduce the symbols add (+) and equals (=) * Generate situations to show 3 + 2 = * Add numbers up to 10 by moving forwards on a number line / counting forwards * Number bonds to 5 * Three jumps to 5 * Which two numbers add to make 5 - € + € = 5, 3 +€ = 5 * Split a specific number of objects between two groups in different ways * Select two sets to make a specific number * Split five in different ways 2,1 2, or 4,1,0, * Find totals of spots on dominoes * Target game scores * Begin to add numbers to 10 by combining sets/adding to them * Vocabulary of addition – create a number sentence to illustrate a story * Show awareness that addition can be done in any order – put the largest number first and count on as a strategy * Missing numbers 3 +€ = 9 | | * Recall of number facts up to 10 (4+4) * Bonds of 10 - add numbers up to 10 * Balance calculations e.g. 4 + 5 =€ + 3 * Look for ten when adding 3+ numbers * How to move from one number to another e.g. from 4 to 9 * Add numbers up to 20 * Use of place value to add teen numbers e.g. 10 + 2 = 12. * Missing numbers - 3 +€ = 17 * Adding zero - the number doesn’t change * Use addition grids * Rapid recall – number facts up to 10/20 * Write a number as the sum of 2/ 3 / 4 numbers * Which two numbers add to make 35? * Select 3 numbers from a set (e.g. 3, 6, 2, 5). What are the possible totals? * Two odd numbers with a total of \_\_\_ * Two numbers with a total of \_\_\_\_ and a difference of \_\_\_\_ * Bonds of 10 - add numbers up to 10 * Balance calculations e.g. 11 + 3 balances 20 - 6. * Starting number / event/ finishing number * I’m thinking of a number. When I add 4, the answer is 16\_\_\_ * Use number bonds to 10 to answer other calculations (e.g. multiples of 10 e.g. 4 + 4 , on to 40 + 40) * Calculate TU + U * TU + a multiple of 10 using a 100 square or number line e.g. 27+ 10 = * Bonds of 100 - multiples of 10 * Add a one/two digit number to two-digit numbers up to 50 * Balance calculations up to 50 * Estimate answers * More complex puzzles * Solve problems – choose an operation, + or - * Add a row of numbers * Recognise, extend and use patterns   3 +4  30+40  300+400   * Patterns 3 + 4 =   13 + 4=  23 + 4 =   * If 20 + 50 = 70, what is 22 + 50? * Bonds of 100 - multiples of 5 e.g. 35 +€ = 100 * Add 2-digit numbers – on a number line, using a non-standard method by jumping tens then units, or units then tens * Show awareness of mental addition strategies and know when it is appropriate to use them   +9 —adjust  largest number first  near doubles  partition and combine  look for tens  count forwards  bridge   * Partition tens and units to do mental calculations   TU  TU + columns with no carrying   * Estimate by rounding off * Number investigations on a 100 square * Exchange units for tens * Practical work – bridge through the tens, exchange units for tens   TU  TU + column method and carrying + Tens + Units = total   * Standard column method * Add TU numbers with the answer beyond 100 e.g. 69 + 73= * 47 +€ + 16 = 100 * Extend to HTU – record standard and non-standard methods * Extend to mental strategies and larger numbers * Solve multi-step problems – number and measures * HTU + TU | |