**Diagnostic Assessment Tool: Number and Place Value – Addition and Subtraction**

Name…………………………………… Year group …………. Date ………

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| Pupil profile (notes and relevant information) |

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| **Oral counting**   * Can you count to 10, 20, 15, …, 100?   *Look for accurate number strings, teens, ty numbers, crossing tens boundaries. Keep going until accurate counting breaks down*   * Can you count back from 10, 20, 17, 32 in ones? |  |
| **Counting on**   * Can you continue counting when I stop?   *Start at 1 and at different points e.g. start at 7, at 23* |  |
| **Object counting**   * How many dinosaurs / objects do you think are here? * Can you count them?   Choose a handful ie. 3 – 10, 10 – 20, 20 – 30 of interesting objects to count e.g. dinosaurs not multilink  *Look for accurate counting, moving, touching objects whilst saying the number name – one to one correspondence*   * Can you give me 6 beads?   *Does the child know when to stop the count?* |  |
| **Writing numbers**   * Can you write 2, 5, 8 etc (numbers to 10, numbers to 20, 2 digit numbers to 100)?   *Look for reversals, lack of confidence, looking at resources to copy numbers from, reversals of 2 digit numbers e.g. 52 ad 25* |  |
| **Number before, number after**   * Can you say the number after / before …   *In the range 0-10; 0-20; 0-30, 0-50, 0-100 etc*  *Does the child start at one or can they say the next number in the sequence?* |  |
| **Number recognition 0 – 10, 20, 100**   * Can you read this number? * Can you find this number?   Using a set of out of order number cards eg 0 – 20, 100 … which is number 12? Number 21? ….  *Can the child find a given number? Distinguish between: 13, 30 and 31 etc*  *Know names for multiples of 10 to 100?* |  |
| **Number sequencing**   * Can you put these numbers in order from the smallest to the largest?   *Using a set of shuffled consecutive numbers, then a set of random number cards 0 – 100 (as appropriate) can the child order consecutive numbers then random numbers?* |  |
| **Place value**   * Does the child understand the value of each digit in 2 digit (then 3 digit) numbers?   *Using structured e.g. Numicon, Dienes and unstructured e.g. bundles of straws, bags of 10 objects, coins and arrow cards can the child make the numbers in the previous three sections? Can they talk about the value of the digits and find their position on a structured number line?* |  |
| **Counting in steps**   * Starting from 0 can you count forward / backward in 2s, 10s?   Starting from zero  Starting from a single digit number  Starting from any number |  |

Summary notes: Number and place value

The following are examples of calculations in a context You will need to adjust the numbers in the calculations according to responses to previous questions

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| **Addition: If I have 4 dinosaurs and 3 more come along, how many will I have altogether?**  (5 add 3, 9 +4, 9+10, 13 +9, 13 +19 etc)  Does the child:   * use objects, count both sets * use pictorial recording * write a number sentence to match the   calculation needed   * count on in ones * use known number facts * count on from the biggest number * count on using a structured number line * count on in tens/ones using an empty number line * use any other recording to help with the calculation? |  |
| **Subtraction: If I have 7 dinosaurs and 4 go off for a walk, how many will I have left?**  (8 subtract 4, 10-7, 23-4, 23-10)  Does the child:   * use objects, count a set, take some away, count how many are left? * use pictorial recording * write a number sentence to match the calculation needed * count back in ones * count back in ones using a structured number line * use known number facts * count back in tens/ ones using a empty number line * count on when appropriate * use any other recording to help with the calculation? |  |

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| Summary notes: Addition and subtraction |