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| **Progression in the teaching of Addition** | | | |
|  | **CONCRETE** | **PICTORIAL** | **ABSTRACT** |
| Combining parts to make one whole  (part-part-whole model) | It is important for children to use a variety of different equipment to make these representations.  Ensure children can use the equipment to represent real life objects.  https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter3_p2.png  https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter3_p4.png  https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter3_p4.png    5 | Children are able to draw their own representations of two parts coming together to make a whole.  https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter3_p2.png  1380724171[1]1380724171[1]1380724171[1]1380724171[1] | Begin to use the term number sentence and allow children to see the relationship between these and their pictorial representations.  2 + 3 = 5  3 + 2 = 5 |
| Adding by counting on from the largest number | Children can use given number lines and bead string to start with the biggest number and then count on to find the total. This could also be done practically where children use a life-size number line and jump along the track.  https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter7_p2.png  https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter7_p2.png  4_d78706a75b3b42ca9d6a18b0eaccc512Counting_strings_adding[1] | Children are able to represent the number sentence on a number line. They can start with the biggest number and then, initially by jumping in ones, count on. | Children can place the largest number in their head and count on, recognising the corresponding number sentence.  8 + 3 = 11 |
| Making ten then adding on the remainder | Children use tens frames and equipment to help them add. Again they start with the biggest number and then use the smaller number to make 10 before adding on the rest.  https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter7_p5.png | Children can use drawings to show how they have repartitioned the smaller number to make 10.    Chapter7_p4  Chapter7_p4 | https://mathsnoproblem.com/wp-content/uploads/samples/Textbook%201A/Chapter7_p4.png  Children are able to use their number bonds to recognise how many more they need to make 10 and then what they have left to create the total. |
| Column addition – no renaming | Children start by using the base 10 and place value counters to set out the column method. They physically move the equipment and recognise the need to combine the ones first before combining the tens.  After using the equipment, they can create their own drawing of the column method, before using solely numbers. They see the written method alongside their equipment and own representation in order to see the links between the two.  NSPM_UK_2A_Chapter2_HiRes_p3[1] | | Children recognise how to line up the digits and to always start adding in the column furthest right. They are able to explain this method to somebody else. As they become more fluent they are able to correct errors and find missing numbers in calculations.  They progress to using this method with decimal numbers.  NSPM_UK_3A_Chapter2_HIRES_V2_p12[1]  NSPM_UK_3A_Chapter2_HIRES_V2_p12[1] |
| Column method with renaming | Using the base 10 or Place Value counters, children will recognise when the value of 10 ones, 10 tens and so on. They will show the need to rename, using the equipment and place this into the appropriate place value column. Using the written method alongside this, when the children are ready, will reinforce how to show workings out when a renaming has taken place. | | MNP_UK_4A_2_HiRes_V2_p11[1]MNP_UK_4A_2_HiRes_V2_p11[1]Children are able to use column addition and can show when renaming has taken place. They understand the need to show this and can confidently explain their written method.  As they become more fluent, they are able to correct errors and find missing numbers in calculations.  They progress to using this method with decimal numbers. |