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|  | Context for learning - Question | Activity  |
| Day one**Learning Focus**: Mental Addition and Subtraction: Counting in powers of 10. | ‘There are 10 tickets on each sheet. A booklet has 10 sheets, so contains 100 tickets. A stack of 10 booklets contains 1000 tickets.A stadium has a capacity of 62, 689. So far, 10, 329 tickets have been sold. How many tickets are available?10,329 + = 62,289How can we figure out the missing value?(MNP TB: 5A- p.54) | Group 1:Pupils will add and subtract mentally by counting forwards or backwards in 10’s, 100’s, 1000’s, 10,000’s and 100,000’s using combinations of those numbers in multiple steps i.e. 135,650 + 244,170 is solved by first adding 200,000, then adding 40,000, then adding 4,000 then 100, then 70 etc. **Application Challenge:** Can pupils solve a range of word problems involving counting forwards and backwards in powers of 10 mentally. |
| Group 2:Pupils will add and subtract mentally by counting forwards or backwards in 10’s, 100’s, 1000’s, 10,000’s and 100,000’s**Application Challenge:** Can pupils begin to use combinations of those numbers in multiple steps i.e. 135,650 + 244,170 is solved by first adding 200,000, then adding 40,000, then adding 4,000 then 100, then 70 etc.  |
| Day two**Learning Focus:**  Mental strategies for addition. | ‘Three pupils try to find the sum of these numbers by adding mentally:2034 + 998 + 41423999 + 2999What methods can they use?’(MNP TB: 4A- p.64) | Group 1:Pupils will solve a range of addition calculations mentally using a range of strategies: counting on, number bonds, partitioning, rounding and adjusting/ compensating etc. and will explain which method they have used (differentiated by sums)**Application Challenge:** Can pupils sort a range of sums by the strategies they would use to solve them under different headings? |
| Group 2:Pupils will solve a range of addition calculations mentally using a range of strategies: counting on, number bonds, partitioning, rounding and adjusting/ compensating etc. (differentiated by sums)**Application Challenge:** Can pupils explain which method they have used to solve each sum? |
| Day three**Learning Focus:** Mental strategies for subtraction  | ‘Mr Worthington tries to subtract 2001-189. How can he do it?’ (MNP TB: 4A- p.83) | Group 1:Pupils will solve a range of subtraction calculations mentally using a range of strategies: counting on from the smaller number (blank numberline), counting back, partitioning, rounding and adjusting/ compensating etc. and will explain which method they have used (differentiated by calculations)**Application Challenge:**  Can pupils sort a range of subtractions by the strategies they would use to solve them under different headings? |
| Group 2:Pupils will solve a range of subtraction calculations mentally using a range of strategies: counting on from the smaller number (blank numberline), counting back, partitioning, rounding and adjusting/ compensating etc. (differentiated by calculations)**Application Challenge:** Can pupils explain which method they have used to solve each subtraction? |
| Day four**Learning Focus:**Formal written methods of addition and subtraction.  | This spreadsheet shows the amount of money Mr Worthington spent on Taxi fares in Jakarta (see MNP TB: 5A- p.70). Compare the amount Mr Worthington spent on taxis on the four days he was in Jakarta. What is a good way to add and subtract numbers like these? | Group 1:Pupils will solve addition and subtraction calculations using the column method and which require carrying/decomposition (differentiated by calculations). They will also use inverse operations to work back and identify the missing numbers in calculations. **Application Challenge:** Can pupils create realistic word problems for the numbers they are adding and subtracting? In which contexts would we use these numbers? |
| Group 2:Pupils will solve addition and subtraction calculations using the column method and which require carrying/decomposition (differentiated by calculations). **Application Challenge:** Can pupils use inverse operations to work back and identify the missing numbers in calculations? |
| Day five**Learning Focus:** Use rounding to check the accuracy of calculations in context. | Mr Worthington, Miss Welsh and Mrs Scarisbrick are each running a marathon. Mr Worthington has run 33,765m, Miss Welsh has run 28,212m, Mrs Scarisbrick has run 40,196m. Approximately how far have they ran altogether? | Group 1:Pupils will use rounding to approximate/ check the accuracy of their answers to addition and subtraction word problems (multi-step).**Application Challenge:** Can pupils use inverse operation to check the accuracy of their answers to calculations? |
| Group 2:Pupils will use rounding to approximate/ check the accuracy of their answers to addition and subtraction word problems (single-step).**Application Challenge:**  Can pupils use inverse operation to check the accuracy of their answers to calculations? |
| Evaluation/Reflection/Intervention (To be completed in PPA) |