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| **Year 5 - Building and assessing the conceptual understanding and learning – Addition and Subtraction** | | | |
| **End of Year Expectations:**  Pupils should be taught to:   * add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) * add and subtract numbers mentally with increasingly large numbers * use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy * solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | | **Non-statutory guidance:**  Pupils practise using the formal written methods of columnar addition and subtraction with increasingly large numbers to aid  fluency (see Appendix 1 – Primary National Curriculum document).  They practise mental calculations with increasingly large numbers to aid fluency (e.g. 12 462 – 2 300 = 10 162).  **See NCETM “Teaching for Mastery” Year 5 book – addition and subtraction.**  https://www.ncetm.org.uk/public/files/23305632/Mastery\_Assessment\_Y5\_Low\_Res.pdf | |
| **Autumn** | **Spring** | | **Summer** |
| * Consolidate addition and subtraction with whole numbers up to 4 digits **in a range of contexts** (e.g. money, measures, problem-solving, investigations), including using formal written methods (columnar addition and subtraction). * Begin to add and subtract with more than 4-digit numbers – linked to understanding of number and place value. * Add and subtract numbers mentally with increasingly large numbers * Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy * Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | * Add and subtract with more than 4-digit numbers – linked to understanding of number and place value (including using formal written methods). * Continue to practise, refine and develop confidence with strategies for addition and subtraction in a range of contexts (e.g. money, measures, problem-solving, investigations). * Explain and reason about which methods/ strategies could be used and which is the best in each case. * Routinely use rounding to approximate and check answers and determine, in the context of the problem, levels of accuracy. | | * Continue to practise and refine mental and written strategies for addition and subtraction in different contextual problems. |

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| Key questions:   * In the context of multi-step problems and investigations, can I confidently add together numbers with up to 4-digits, using a formal written (column) method where appropriate and explain what I have done? * Can I use a range of strategies for addition, choosing appropriately for the numbers involved – (including mental strategies), and I can explain when it is appropriate to use different methods? * In the context of multi-step problems and investigations, can I confidently subtract from numbers with up to 4-digits, using a formal written (column) method where appropriate and explain what I have done? * Can I use a range of strategies for subtraction, choosing appropriately for the numbers involved – (including mental strategies), and I can explain when it is appropriate to use different methods? * Am I routinely able to use rounding to approximate a solution or answer so that I can check accuracy? | Key questions:     * In the context of multi-step problems and investigations, can I confidently add together numbers with more than 4 digits, using a formal written (column) method where appropriate and explain what I have done? * In the context of multi-step problems and investigations, can I confidently subtract from numbers with more than 4-digits, using a formal written (column) method where appropriate and explain what I have done? * Am I routinely able to use rounding to approximate a solution or answer so that I can check accuracy? | Key questions:   * In the context of investigations and multi-step problems, can I confidently add whole numbers with more than 4 digits, including using formal written methods (columnar addition) where appropriate? * Where appropriate, can I apply known facts and strategies to add mentally (4+ digits)? * In the context of investigations and multi-step problems, can I confidently subtract from whole numbers with more than 4 digits, including using formal written methods (columnar addition) where appropriate? * Where appropriate, can I apply known facts and strategies to subtract mentally (from 4+ digits)? * Can I use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy? * Can I solve addition and subtraction multi-step problems in a range of contexts, deciding and explaining which operations and methods to use and why? |