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| **Year 4 - Building and assessing the conceptual understanding and learning – Number and Place Value** | | | | |
| **End of Year Expectations:**  Pupils should be taught to   * count in multiples of 6, 7, 9, 25 and 1000 * find 1000 more or less than a given number * count backwards through zero to include negative numbers * recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) * order and compare numbers beyond 1000 * identify, represent and estimate numbers using different representations * round any number to the nearest 10, 100 or 1000 * solve number and practical problems that involve all of the above and with increasingly large positive numbers * read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. | | **Non-statutory guidance:**  Using a variety of representations, including measures, pupils become fluent in the order and place value of numbers beyond 1000, including counting in tens and hundreds, and maintaining fluency in other multiples through varied and frequent practice.  They begin to extend their knowledge of the number system to include the decimal numbers and fractions that they have met so far.  They connect estimation and rounding numbers to the use of measuring instruments.  Roman numerals should be put in their historical context so pupils understand that there have been different ways to write whole numbers and that the important concepts of zero and place value were introduced over a period of time. | | |
| **Autumn** | **Spring** | | **Summer** | |
| * count in multiples of 6, 9 * count in multiples of 1000 * find 1000 more or less than a given number * round any number to the nearest 10, 100 or 1000 * recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) * recognise and explain the effect of multiplying by 10 and 100 on two and three digit numbers. * begin to understand the effect of dividing by 10 and 100 * order and compare numbers beyond 1000 | * Count in multiples of 7 * count in multiples of 25 * round any number to the nearest 10, 100 or 1000 * count backwards through zero to include negative numbers * solve number and practical problems that involve all of the above and with increasingly large positive numbers * Use measures as a context for ordering, comparing and rounding. * Integrate fractions and decimals into increasing knowledge of the number system, placing them on a number line and comparing and ordering decimals (see fractions domain plan – and non-statutory guidance on “Building Learning” document) | | Knowledge should now be applied and assessed in contexts such as measures and problem solving.  Roman numerals – and the development of the current number system - should be integrated appropriately, for example through topic work.  **See NCETM “Teaching for Mastery” Year 4 book – number and place value**  https://www.ncetm.org.uk/public/files/23305622/Mastery\_Assessment\_Y4\_Low\_Res.pdf | |
| **Key questions:**   * Can I confidently count in multiples of 6 up to 72 and relate this to my knowledge of multiples of 3’s? * Can I confidently count in multiples of 9 and relate this to 3’s and 6’s? * Can I find 1000 more or less than a given number, quickly identifying which digit will change and which stay the same? * Can I round any three or four digit numbers to the nearest 10 and 100? * Can I reason about, demonstrate and explain the value of each digit in a four-digit number (thousands, hundreds, tens, ones)? * Can I multiply a number by 10 and 100 explain the effect on a 2 and 3 digit numbers? * Can I divide by 10 and 100 and explain the effect of this on three and four digit numbers? * Can I order and compare numbers beyond 1000? | **Key questions:**   * Can I confidently count in multiples of 7 to 84? * Can I count in multiples of 25? * Can I count backwards through zero to include negative numbers? * Can I round any number to the nearest 10, 100 or 1000? * Can I solve problems involving all of the above and with increasingly large positive numbers?   Can I relate my understanding of the number system to contextual problems involving numbers in the context of measures?   * Can I place fractions and decimals correctly on a number line? | | | **Key questions:**  Check that place value knowledge is confidently applied and used in contexts such as measures and within problem solving. Where errors occur, check consolidation of place value with large numbers.   * Can I read roman numerals to 100? |