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| **Year 5 - Building and assessing the conceptual understanding and learning – Number and Place Value** | | | |
| **End of Year Expectations:**  Pupils should be taught to   * read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit * count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 * interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero * round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 * solve number problems and practical problems that involve all of the above * read Roman numerals to 1000 (M) and recognise years written in Roman numerals. | | **Non-statutory guidance:**  Pupils identify the place value in large whole numbers.  They continue to use number in context, including measurement. Pupils extend and apply their understanding of the number system to the decimal numbers and fractions that they have met so far.  They should recognise and describe linear number sequences, including those involving fractions and decimals, and find the term-to-term rule.  **See NCETM “Teaching for Mastery” Year 5 book –number and place value.**  https://www.ncetm.org.uk/public/files/23305632/Mastery\_Assessment\_Y5\_Low\_Res.pdf | |
| **Autumn** | **Spring** | | **Summer** |
| * Extend counting skills (forwards and backwards) to the number system beyond 1000, and including decimal sequences. * Extend the range of numbers that we can read, write and order beyond 1000. Determine the value of each digit in each number. * Round whole numbers beyond a thousand to the nearest ten and one hundred. * Read, write and order decimal numbers with one decimal place, relating this to knowledge and understanding of “tenths”. * Round decimals with one decimal place to the nearest whole number * Begin to read some roman numerals to at least 100. | * Continue to extend counting skills (forwards and backwards) 100,000+, including some decimal sequences. * Extend the range of numbers that we can read, write and order to 100,000+. Determine the value of each digit in each number. * Round whole numbers to 100,000+ the nearest ten thousand. * read, write and order decimal numbers with one and two decimal places, relating this to knowledge and understanding of “tenths” and “hundredths”. * round decimals with two decimal places to the nearest whole number and to one decimal place * interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero (linked to temperature). | | * count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 * read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit * round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 * Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. * Extend and apply their understanding of the number system to the decimal numbers and fractions they have met so far (e.g. in the context of measures). |

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| **Key questions:**   * Can I extend counting sequences beyond a thousand, in steps of ten and a hundred (forwards and backwards) from different starting points? * Can I extend decimal number sequences (forwards and backwards) - numbers to one d.p? * Can I read, write and order numbers to 5000, determining the value of each digit in the number? * Can I round whole numbers beyond a thousand to the nearest ten and one hundred? * Can I read, write and order decimal numbers with one decimal place, relating this to knowledge and understanding of “tenths”. * Can I round decimals with one decimal place to the nearest whole number * Can I read some roman numerals to at least 1000. | **Key questions:**   * Can I counting (forwards and backwards) to 100,000+?. * Can I count in a decimal sequence involving numbers to 2 d.p? * Can I read, write and order numbers to 100,000+. And determine the value of each digit in the number. * Can I round whole numbers to 100,000+ the nearest ten thousand, thousand or hundred? * Can I read, write and order decimal numbers with one and two decimal places, relating this to knowledge and understanding of “tenths” and “hundredths”. * Can I round decimals with two decimal places to the nearest whole number and to one decimal place? * Can I interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero? | **Key questions:**   * Can I count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000? * Can I read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit? * Can I round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000? * Can I read Roman numerals to 1000 (M) and recognise years written in Roman numerals? * Can I extend and apply their understanding of the number system to the decimal numbers and fractions they have met so far (e.g. in the context of measures)? |