St Anthony's Catholic Primary School

Progression : Number and place value
Programme of study (statutory requirements)

Y1	Y2	Y3	Y4	Y5	Y6
Number and place value Pupils should be taught to: • count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number (first 0-10, then 0-20, then 0-40, then 0-100) • count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens • given a number, identify one more and one less • identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least • read and write numbers from 1 to 20 in numerals and words	**Number and place value** Pupils should be taught to: • count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward • recognise the place value of each digit in a two-digit number (tens, ones) • identify, represent and estimate numbers using different representations, including the number line • compare and order numbers from 0 up to 100; use <, > and = signs • read and write numbers to at least 100 in numerals and in words • use place value and number facts to solve problems	**Number and place value** Pupils should be taught to: • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas	**Number and place value** Pupils should be taught to: • count in 10,000 • 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 to 10,000 • 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	**Number and place value** 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 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	**Number and place value** Pupils should be taught to: • read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • round any whole number to a required degree of accuracy (to nearest 10, 100, 1000, 10 000, 100 000 and 1 000 000) • use negative numbers in context, and calculate intervals across zero • solve number and practical problems that involve all of the above

Non-statutory

Y1	Y2	Y3	Y4	Y5	Y6
Number and place value Pupils practise counting (1, 2, 3), ordering (for example, first, second, third), or to indicate a quantity (for example, 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent. Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations. Use a place value chart to show numbers in tens and ones. Find out how much more. They practise counting as reciting numbers and counting as enumerating objects, and counting in twos, fives and tens (to 100) from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers), including varied and frequent practice through increasingly complex questions. They recognise and	**Number and place value** Using materials and a range of representations, pupils practise counting, reading, writing and comparing numbers to at least 100 and solving a variety of related problems to develop fluency. They count in multiples of three to support their later understanding of a third. As they become more confident with numbers up to 100, pupils are introduced to larger numbers to develop further their recognition of patterns within the number system and represent them in different ways, including spatial representations. Pupils should partition numbers in different ways (for example, 23 = 20 + 3 and 23 = 10 + 13) to support subtraction. They become fluent and apply their knowledge of numbers to reason with, discuss and solve problems that emphasise the value of each digit in two-digit numbers. They begin to understand zero as a place holder.	**Number and place value** Pupils now use multiples of 2, 3, 4, 5, 8, 10, 50 and 100. They use larger numbers to at least 1000, applying partitioning related to place value using varied and increasingly complex problems, building on work in year 2 (for example, 146 = 100 and 40 and 6, 146 = 130 and 16). Using a variety of representations, including those related to measure, pupils continue to count in ones, tens and hundreds, so that they become fluent in the order and place value of numbers to 1000. Count in hundreds, tens and ones. Complete number patterns.	**Number and place value** 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. Count in thousands, hundreds, tens, ones. Escribe and complete number patterns.	**Number and place value** 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 They should recognise and describe linear number sequences (for example, 3, 3 ½ , 4, 4 1/2 ...), including those involving fractions and decimals, and find the term-to-term rule in words (for example, add ½)	**Number and place value** Pupils use the whole number system, including saying, reading and writing numbers accurately. Add and subtract negative numbers.

create repeating patterns with objects and with shapes. Make different number bonds for numbers up to 10. Make number stories. Complete number patterns. Say a number that is 1 more or 1 less than a 2-digit number.	Make and complete number patterns.				