



Walford Nursery & Primary School

Mathematics Progression

Number: Number and Place Value



COUNTING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number			count backwards through zero to include negative numbers	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	use negative numbers in context, and calculate intervals across zero
count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward	count from 0 in multiples of 4, 8, 50 and 100; Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	count in multiples of 6, 7, 9, 25 and 1000 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.	count forwards or backwards in steps of powers of 10 for any given number up to 1000 000 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.	Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
given a number, identify one more and one less		find 10 or 100 more or less than a given number	find 1,000 more or less than a given number		

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COMPARING NUMBERS					
<p>Use the language of: equal to, more than, less than (fewer), most, least</p> <p>Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$</p>	<p>Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs</p> <p>Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.</p>	<p>Compare and order numbers up to 1000</p> <p>Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.</p> <p>Reason about the location of any <i>three</i>-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</p>	<p>Order and compare numbers beyond 1000</p> <p>Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.</p> <p>Reason about the location of any <i>four</i>-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.</p>	<p>Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)</p> <p>Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.</p> <p>Reason about the location of any number with up to 2 decimal places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.</p>	<p>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)</p> <p>Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.</p> <p>Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.</p>



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IDENTIFYING, REPRESENTING AND ESTIMATING NUMBERS

identify and represent numbers using objects and pictorial representations including the number line	identify, represent and estimate numbers using different representations, including the number line	identify, represent and estimate numbers using different representations	identify, represent and estimate numbers using different representations		
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READING AND WRITING NUMBERS (including Roman Numerals)

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>read and write numbers from 1 to 20 in numerals and words.</p>	<p>read and write numbers to at least 100 in numerals and in words</p>	<p>read and write numbers up to 1000 in numerals and in words</p>	<p>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.</p>	<p>read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers)</p> <p>read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p>	<p>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Understanding Place Value)</p>
		<p><i>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks (copied from Measurement)</i></p>			

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UNDERSTANDING PLACE VALUE					
	recognise the place value of each digit in a two-digit number (tens, ones) and compose and decompose two-digit numbers using standard and non-standard partitioning.	recognise the place value of each digit in a three-digit number (hundreds, tens, ones) and compose and decompose <i>three</i> -digit numbers using standard and non-standard partitioning.	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) and compose and decompose <i>four</i> -digit numbers using standard and non-standard partitioning.	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)
			<i>find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths</i> (copied from Fractions)	Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning	<i>identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places</i> (copied from Fractions)

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ROUNDING					
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			round any number to the nearest 10, 100 or 1 000	round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000	round any whole number to a required degree of accuracy
				<i>round decimals with two decimal places to the nearest whole number and to one decimal place</i> (copied from Fractions)	<i>solve problems which require answers to be rounded to specified degrees of accuracy</i> (copied from Fractions)
PROBLEM SOLVING					
	use place value and number facts to solve problems	solve number problems and practical problems involving these ideas.	solve number and practical problems that involve all of the above and with increasingly large positive numbers	solve number problems and practical problems that involve all of the above Convert between units of measure, including using common decimals and fractions.	solve number and practical problems that involve all of the above

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