

# Number: Number and Place Value

Counting							
Knowledge & Skill Progression							
Year 1			Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	Spring	Summer					
<p>Fluently count to ten when counting objects</p> <p>Fluently count to ten</p> <p>Children count on from any number whilst staying within ten</p> <p>Children can count backwards within ten</p> <p>Children know that the last number that they count is the total</p> <p>Children know that zero comes before one.</p>	<p>Children count forwards and backwards between 20 and 50</p>	<p>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p>	<p>Count in fractions up to a whole (halves, quarters and thirds)</p>	<p>Count in fractions less than 1 whole.</p>	<p>count backwards through zero to include negative numbers</p> <p>Count in fractions</p> <p>Count in tenths</p> <p>Count in hundredths</p>	<p>interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>Count in any fraction or decimal</p>	<p>use negative numbers in context, and calculate intervals across zero</p> <p>Count in any fraction and decimals.</p>
	<p>Children count in groups of ten</p> <p>Children count groups of ten and ones</p>	<p>Children count in multiples of 10 to 100.</p> <p>Count in 2s (multiplication and division)</p>	<p>Count to 100 by making tens</p> <p>Count forwards and backwards in 2s, 5s, 10s,</p>	<p>count from 0 in multiples of 2, 5, 10, 3, 4, 8, 50 and 100;</p>	<p>Count in 1000s forwards and backwards</p> <p>count in multiples of 2, 5, 10, 3, 4, 8, 6, 7, 9, 25, 50 and 100</p>	<p>count forwards or backwards in steps of powers of 10 for any given number up to 1,000 000</p>	<p>count forwards or backwards in steps of powers of 10 for any given number up to 10,000, 000</p>

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		unit) Count in 5s (multiplication and division unit) Count in 10s (multiplication and division unit)	Count in 3s  Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward				
Count one more and one less within 10	1 more and 1 less than any number within 20  1 more and 1 less than any number between zero and 50	1 more and 1 less. They explore this in the context of numbers from 50 to 100		1, 10 and 100 more or less than a 3-digit number.	1, 10, 100 and 1,000 more or less than a number with up to four digits.	10/100/1,000/10,000/100,000 more or less	
<b>Compare and order (Skill)</b>							
Compare groups by matching Children compare numbers within ten  Order three groups of objects. Order a set of three numbers.  Use the language of fewer, more, same  Use less than, greater than, equal to	Compare numbers to 20. Order numbers to 20. use the language of: equal to, more than, less than (fewer), most, least	Compare numbers with the same number of tens Compare any two numbers.  use the language of: equal to, more than, less than (fewer), most, least  Children can find consecutive and non- consecutive numbers in a sequence	Comparing quantities using objects and compared objects where the objects are used as a representation of number.  Compare numbers in a more abstract way. The language of "greater than", "less than" and "equal to" should be used alongside the inequality symbols throughout. < > and =  Order objects and numbers.	Compare numbers to 1000.  Order numbers to 1000	Compare numbers to 10,000  Order numbers to 10,000	Compare and order numbers to 100,000  Compare and order numbers to 1,000,000	Compare and order any integers.
<b>Identifying, representing (Key representations) and estimating numbers</b>							
<u>Place Value within</u>	<u>Place Value within</u>	<u>Place Value within</u>	Tens frames and base	Bead string, base ten	Base ten and place value	Base ten, place value counters, place value charts, part whole	Place value charts

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<p><b>10</b></p> <p>identify and represent numbers using objects-counters and cubes.</p> <p>Tens frames/ number tracks to count on from any number.</p> <p>Number line to 10.</p>	<p><b>20</b></p> <p>Number tracks for counting on</p> <p>Ten frames, bead strings and towers of cubes to identify and represent numbers. (understand 10 small step)</p> <p>Tens frame, rekenrek, cube towers for '10 and a bit structure'</p> <p>Number line to 20.</p> <p><b><u>Place Value within 50</u></b></p> <p>Number tracks and half hundred squares.</p> <p>Ten frames, base 10, bead strings and towers of cubes.</p> <p>Counting groups of ten from objects such as counters, cubes and straws.</p> <p>Building towers of 10 cubes or bundling 10 straws will reinforce the concept of 1 ten being equal to 10 ones.</p>	<p><b>100.</b></p> <p>Hundred squares</p> <p>Tens frames, bead strings, base ten.</p> <p>Part whole model.</p> <p>Number line to 100.</p>	<p>ten</p> <p>Place value charts</p> <p>Part whole models ( all partitioning recorded as a part whole model rather than an addition statement)</p> <p>Number line to 100</p>	<p>Part whole model</p> <p>Number line</p> <p>Base ten (main representation of numbers to 1000)</p> <p>Place value counters introduced for the first time.</p> <p>Place value chart</p> <p>Number line to 1000.</p>	<p>counters are used throughout.</p> <p>Part whole model</p> <p>Number line to 1000</p> <p>Place value charts</p> <p>Gattegno charts</p> <p>Number line to 10,000</p>	<p>models. (main representation is place value charts)</p> <p>Place value counters and plain counters.</p> <p>Gattegno chart</p> <p>Number line to 1,000,000</p>	<p>Place value counters</p> <p>Gattegno charts</p> <p>Part whole models</p> <p>Number line to 10,000,000</p>
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	Number line to 50.						
<b>Reading and writing numbers (including Roman Numerals)</b>							
		read and write numbers from 1 to 20 in numerals and words	read and write numbers to at least 100 in numerals and in words	read and write numbers up to 1000 in numerals and in words  Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24- hour clocks	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	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit

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## Understanding Place Value (Knowledge)

	<p>Children know that numbers 11- 20 have one ten and 'some more'</p> <p>Children know that one ten is ten ones</p> <p>Children know that one more is one more one not ten more.</p>	<p>Children know how many tens and ones are in numbers to 100</p>	<p>recognise the place value of each digit in a two-digit number (tens, ones)</p>	<p>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</p> <p>Children know that ten tens make 100</p> <p>Children know that a hundred ones make 100</p> <p>Children know that hundreds are bigger than tens and tens are bigger than ones</p> <p>Children know that a three digit number is made up of hundred, tens and ones</p>	<p>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</p> <p>Children know that a 1000 is made up of ten hundreds.</p>	<p>read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</p>	<p>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</p>
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## Rounding

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## Key Vocabulary

<p>Number, numeral, zero, one, two, three.... Twenty.</p> <p>Twenty one, twenty two... one hundred. None, count on, count back, count up, forwards, backwards, count in ones, count in twos, count in fives, count in tens, sequence, equal to, equivalent to, is the same as, more, less, most, least, many, odd, even, multiple,</p>	<p>Threes, hundreds, place value, represents, one digit number, two digit number, &lt; &gt; and =</p>	<p>Multiples, thousand, hundred more, hundred less, ascending, descending, fifties, multiples of 50</p>	<p>roman numeral to 100, rounding to the nearest 10, 100 and 1000, ten thousand, thousand more, thousand less, twenty- fives, negative numbers – negative one,</p>	<p>Roman numeral to thousand, rounding to the nearest ten thousand, hundred thousand round within one million</p>	<p>Ten million, rounding to the nearest ten million,</p>
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<p>few, pattern, pair. Ones, digit, tens, greater, fewer, smaller, fewest, biggest, largest, greatest, one more, ten more, one less, ten less, compare, sort, order, size, first, second, third... twentieth, last, last but one, before, after, next, in between, half way between, above, below, column, ( non-statutory &lt; &gt; =)</p> <p>Estimate, roughly, nearly, close to, just under, just over, too many, too few, not enough, enough, value.</p>			<p>negative two....</p>	<p>Hundred thousand,  One million, powers of ten,</p>	
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## Ready to Progress

<p><b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.</p> <p><b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system.</p> <p><b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.</p> <p><b>1AS-1</b> Compose numbers to 50 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers within 20</p> <p><b>1AS-1</b> Compose numbers to 100 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers within 20</p> <p><b>1AS-1</b> Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.</p>	<p><b>2NPV-1</b> Recognise the place value of each digit in two-digit numbers, and compose and decompose two digit numbers using standard and nonstandard partitioning.</p> <p><b>2NPV-1</b> Recognise the place value of each digit in two-digit numbers, and compose and decompose two digit numbers using standard and nonstandard partitioning.</p>	<p><b>3NPV-1</b> 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><b>3NPV-2</b> Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.</p> <p><b>3NPV-3</b> Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</p> <p><b>3NPV-4</b> Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples</p>	<p><b>4NPV-1</b> 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><b>4NPV-2</b> Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.</p> <p><b>4NPV-3</b> Reason about the location of any four-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><b>4NPV-4</b> Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000</p>	<p><b>5NPV-1</b> 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><b>5NPV-2</b> 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 nonstandard partitioning.</p> <p><b>5NPV-3</b> Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous</p>	<p><b>6NPV-2.</b> 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 nonstandard partitioning.</p> <p><b>6NPV-1</b> Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).</p> <p><b>6NPV-3</b> 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</p>
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		<p>of 100 with 2, 4, 5 and 10 equal parts.</p>	<p>with 2, 4, 5 and 10 equal parts.</p>	<p>and next multiple of 1 and 0.1 and rounding to the nearest of each.</p> <p><b>5NPV-4</b> 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</p>	<p>contexts.</p> <p><b>6NPV-4</b> 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.</p>
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