



# Progression in Maths: *Number: Number and Place Value*

Progression statements taken from NCETM Progression Maps for KS1 and KS2

EYFS statements taken from EYFS Development Matters. Statements in **red** taken from NCETM EYFS Progression charts.

EYFS 30-50 mths	EYFS 40-60 mths	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>COUNTING</b>							
<p>recites numbers in order to 10</p> <p>uses some number names and number language spontaneously</p> <p>uses some number names accurately in play</p> <p>shows an interest in numerals in the environment</p> <p>realises not only objects, but anything can be counted, including steps, claps or jumps</p> <p><b>Cardinality and Counting:</b> Says number names in sequence to 5/10. 1:1 counting— tag each number with one number word. Knowing the last number gives the total so far. Subitising: knowing how many without counting. Matching a numeral to a set of objects. Conservation: the number does not change if objects are re-arranged (as long as none have been added/ taken away)</p>	<p>counts up to three or four objects by saying one number name for each item</p> <p>counts actions or objects which cannot be moved</p> <p>counts objects to 10, and beginning to count beyond 10</p> <p>counts out up to six objects from a larger group</p> <p>counts an irregular arrangement of up to ten objects</p> <p>says the number that is one more than a given number</p> <p>finds one more or one less from a group of up to five objects, then ten objects</p> <p><b>Cardinality and Counting</b> (as 30-50mths) including: Say number names in sequence crossing boundaries 19/20 29/30</p> <p>Subitising when objects are not in a regular arrangement</p> <p>Knowing the 1 more/ 1 less relationship between counting numbers.</p> <p><b>ELG: count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number.</b></p>	<p>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p> <p>count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</p> <p>given a number, identify one more and one less</p>			<p>count backwards through zero to include negative numbers</p> <p>count in multiples of 6, 7, 9, 25 and 1000</p> <p>find 10 or 100 more or less than a given number</p> <p>find 1000 more or less than a given number</p>	<p>interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</p> <p>count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</p>	<p>use negative numbers in context, and calculate intervals across zero</p>



# Progression in Maths:

# *Number: Number and Place Value*

EYFS 30-50 mths	EYFS 40-60 mths	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>COMPARING NUMBERS</b>							
<p>compares two groups of objects, saying when they have the same number</p> <p><i>Compare collections and talk about which group has more.</i></p> <p>shows curiosity about numbers by offering comments or asking questions.</p>	<p>recognise some numerals of personal significance</p> <p>uses the language of 'more' and 'fewer' to compare two sets of objects</p> <p><u>Comparing numbers and reasoning:</u> For example, a child is shown two boxes and told one has 5 sweets in and the other has 3 sweets in. Which box would they pick to keep and why?</p> <p>Compare numbers that are far apart, near to and next to each other. For example, 8 is a lot bigger than 2 but 3 is only a little bit bigger than 2.</p> <p><b>ELG: order numbers to 20 and say which number is one more or one less than a given number</b></p>	<p>use the language of: equal to, more than, less than (fewer), most, least</p>	<p>compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs</p>	<p>compare and order numbers up to 1000</p>	<p>order and compare numbers beyond 1000</p> <p>----- <i>compare numbers with the same number of decimal places up to two decimal places (copied from Fractions)</i></p>	<p>read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</p> <p><i>(appears also in Reading and Writing Numbers)</i></p>	<p>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</p> <p><i>(appears also in Reading and Writing Numbers)</i></p>
<b>IDENTIFYING, REPRESENTING AND ESTIMATING NUMBERS</b>							
<p>knows that numbers identify how many objects are in a set</p> <p>shows an interest in representing numbers</p> <p>beginning to represent numbers using fingers, marks on paper or pictures</p> <p>Sometimes matches numeral and quantity correctly</p>	<p>estimates how many objects they can see and checks by counting them</p> <p>records, using marks that they can interpret and explain</p> <p><i>Subitise: recognise how many things are in a small group without having to count them one by one. (with regular and irregular arrangements)</i></p>	<p>identify and represent numbers using objects and pictorial representations including the number line</p>	<p>identify, represent and estimate numbers using different representations, including the number line</p>	<p>identify, represent and estimate numbers using different representations</p>	<p>identify, represent and estimate numbers using different representations</p>		



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<b>READING AND WRITING NUMBERS (inc Roman Numerals)</b>							
<p><u>Numeral meanings:</u> Opportunities to match a number symbol to a number of things. Look for opp's to have a range of number symbols available, e.g. wooden numerals, calculators, handwritten</p>	<p>recognises numerals 1 to 5</p> <p>selects the correct numeral to represent 1 to 5, then 1 to 10 objects</p> <p><b>ELG: Children count reliably with numbers from one to 20 and place them in order.</b></p>	<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, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</p> <p><i>(appears also in Comparing Numbers)</i></p>	<p>read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</p> <p><i>(appears also in Understanding Place Value)</i></p>
				<p>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks <i>(copied from Measurement)</i></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 Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p>	



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<b>UNDERSTANDING PLACE VALUE</b>							
	<b>ELG: Children count reliably with numbers from one to 20 and place them in order.</b>		recognise the place value of each digit in a two-digit number (tens, ones)	recognise the place value of each digit in a three-digit number (hundreds, tens, and ones)	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)  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)</i>	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit  <i>(appears also in Reading and Writing Numbers)</i>  recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents  <i>(copied from Fractions)</i>	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit <i>(appears also in Reading and Writing Numbers)</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)</i>
<b>ROUNDING</b>							
					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
					round decimals with one decimal place to the nearest whole number <i>(copied from Fractions)</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)</i>



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<b>PROBLEM SOLVING</b>							
Shows an interest in number problems	Begins to identify own mathematical problems based on own interests and fascinations		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	solve number and practical problems that involve all of the above