



## Mathematics Progression of Skills Number and Place Value

2 Years	3 Years	4 Years	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>COUNTING</b>									
Recite some numbers in order but may not have the complete sequence correct.	Recites numbers to 10 in the correct order and points to objects but doesn't say one number name for each object.	Shows correspondence with numbers to objects up to 5, and shows cardinality at 5.	Counts correctly scattered objects (10+) by moving them, keeping track of each one as it's moved. Know the total when asked.	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number	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;	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
Combining objects like stacking blocks and cups	Count objects by pointing to each one and saying the correct number name in sequence.	Show correspondence with numbers to objects up to 10, and shows cardinality at final number.	Correctly counts backwards from 10.	Count, read and write numbers to 100 in numerals,		Find 10 or 100 more or less than a given number	Count in multiples of 6, 7, 9, 25 and 1000	Count forwards or backwards in steps of powers of 10 for any given number up to 1000 000	
Take part in finger rhymes with numbers		Counts out a certain amount of objects from a larger group.	To count on and back from a given number (not 1)	Given a number, identify one more and one less			Find 1000 more or less than a given number		
	Link numerals and amounts showing the right number of objects to match numerals up to 5.	As 3 years		Count in multiples of twos, fives and tens					
<b>SUBITISING</b>									
Can make the same amount.	Can subitise to 4	Can subitise to 5	Can subitise to 10 by using what they know, such as two arrangements of 5.						
Can say the amount of two or three familiar objects without counting.	Show finger numbers to 5.	As 3 years							
<b>COMPARING NUMBERS</b>									
Can place one object into one space.	Identifies the "first" and "second" objects in a sequence.	Matches small (1 to about 4), equal collections consisting of different items, showing that they are the same number.	Can accurately compare via counting, but only when objects are about the same size & the groups are small (1 to about 5).	Use the language of: equal to, more than, less than (fewer), most, least	Compare and order numbers from 0 up to 100; use <, > and = signs	Compare and order numbers up to 1000	Order and compare numbers beyond 1000	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
Can point and count objects saying the number names in the correct sequence but may be incorrect.	Compares collections of 1-4 of the same items verbally or nonverbally. May compare small collections using number words.	Compares groups of 1-6 by matching.	Can use knowledge of counting number relationships to determine relative size and position of numbers up to about 5	Use ordinal numbers			Compare numbers with the same number of decimal places up to two decimal places		
Can identify which group has more from two groups of objects.	Compare quantities using language, more than / fewer than.	As 3 years							

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<b>IDENTIFYING, REPRESENTING AND ESTIMATING NUMBERS</b>									
	Knows that a whole is bigger than parts, although may not accurately quantify (label with numbers).	Knows number combinations to totals of 5. Quickly names parts of any whole, or the whole given parts. (also in 5 years)	Knows number combinations to totals of 5. Quickly names parts of any whole, or the whole given parts. (also in 4 years)	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		
			(Age 5+) Knows number combinations to totals of 7. Quickly names parts of any whole, or the whole given parts. May know doubles to 10 (5 and 5 is 10).						
<b>READING AND WRITING NUMBERS (including Roman Numerals)</b>									
		Reads numbers to 5	Reads numbers to 10	Read and write numbers to 100 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	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
						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 1000 (M) and recognise years written in Roman numerals.	
<b>UNDERSTANDING PLACE VALUE</b>									
				Recognise the place value of each digit in a two-digit number (tens, ones)	Confidently 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, ones)	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	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
							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	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	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

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<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	Round decimals with two decimal places to the nearest whole number and to one decimal place	Solve problems which require answers to be rounded to specified degrees of accuracy
<b>PROBLEM SOLVING</b>									
					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