

# Fluent in Five

## Progression in Objectives Document

Year 4

# Progression in Objectives

This shows the objectives for Year 4 that can be tested in the arithmetic paper. These are shown alongside Year 3 objectives, which by the start of Year 4 it is assumed all children will be secure in. The Fluent in Five daily challenges are based on children progressing to Year 4 objectives throughout the first term, with the majority of calculations objectives secure by the start of spring term.

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## Number and place value

	Content domain references	End of Year 3	End of Year 4
<b>Number and place value</b>	<b>N1</b> Counting in multiples (NB: Can be used for multiplication questions in arithmetic papers).	Count from 0 in multiples of 4, 8, 50 and 100.	Count in multiples of 2, 4, 6, 7, 8, 9, 25, 50 and 1,000.
	<b>N2</b> Reading and writing numbers (NB: This is the highest value numbers that can be tested).	Read and write numbers to 1,000 in numerals and in words.	Read, write, order and compare numbers beyond 1,000.
	<b>N3</b> Compare and order numbers.	Compare and order numbers from 0 up to 999, use $<$ , $>$ and $=$ signs.	
	<b>N4</b> Finding 10, 100 more or less (mentally).	Find 10 or 100 more or less than a given number.	Find 10, 100 or 1,000 more of less than a given number.
	<b>N5</b> Place value in numbers.	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).

	Content domain references	End of Year 3	End of Year 4
<b>Number and place value</b> (continued)	<b>N6</b> Negative numbers. <i>(In calculation paper context, this could only be questions which involve the answer of 0 or a negative number)</i>		Count backwards through zero to include negative numbers.

# The Four Operations

	Content domain references	End of Year 3	End of Year 4
<b>The four operations</b>	<b>C KS1 1</b> Number bonds and known facts (addition).	Recall and use addition facts to 20 fluently, and derive and use related facts up to 100.	
	<b>C KS1 2</b> Number bonds and known facts (subtraction).	Recall and use subtraction facts to 20 fluently, and derive and use related facts up to 100.	
	<b>C1</b> Mental addition and subtraction.	a) Add and subtract numbers with up to three digits and ones.	a) Add and subtract numbers with up to three digits and ones.
		b) Add and subtract numbers with up to three-digits and tens.	b) Add and subtract numbers with up to three digits and tens.
		c) Add and subtract numbers with up to three digits and hundreds.	c) Add and subtract numbers with up to three digits and hundreds.
		d) Add and subtract two two-digit numbers (no crossing of tens boundary).	d) Add and subtract two two-digit numbers (crossing of tens boundary).
e) Add three one-digit numbers.	e) Add three one-digit numbers.		

	Content domain references	End of Year 3	End of Year 4
<b>The four operations</b> (continued)	<b>C2</b> Written addition and subtraction.	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.	Add and subtract numbers with up to four digits, using formal written methods of columnar addition and subtraction.
	<b>C3</b> Multiplication facts.	a) Recall and use multiplication and division facts for the 4 times table.	a) Recall and use multiplication and division facts for the 7 times multiplication table.
		b) Recall and use multiplication and division facts for the 8 times table.	b) Recall and use multiplication and division facts for the 9 times multiplication table.
		c) Recall and use multiplication and division facts for the 3 times table.	c) Recall and use multiplication and division facts for all times tables up to 12 x 12.
		d) Recall and use multiplication and division facts for the 2, 5 and 10 times table.	d) Recall and use multiplication and division facts for the 2, 3, 4, 5, 8 and 10 times table.

	Content domain references	End of Year 3	End of Year 4
<b>The four operations</b> (continued)	<b>C4</b> Known multiplication and division facts.	a) Use place value, known and derived facts to multiply by 0.	a) Use place value, known and derived facts to multiply by 0.
		b) Use place value, known and derived facts to multiply and divide by 1.	b) Use place value, known and derived facts to multiply and divide by 1.
			c) Use place value, known and derived facts to multiply 3 single-digit numbers.
			d) Use place value, known and derived facts to multiply multiples of 10 by a single-digit number.
			e) Find the effect of dividing a one or two-digit number by 10 and 100.

	Content domain references	End of Year 3	End of Year 4
<b>The four operations</b> (continued)	<b>C8</b> Known multiplication and division facts.	a) Calculate mathematical statements for multiplication within the known the multiplication tables and write them using the multiplication ( $\times$ ), and equals ( $=$ ) signs.	a) Write and calculate mathematical statements for multiplication using the multiplication tables that pupils know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
		b) Calculate mathematical statements division within the known the multiplication tables and write them using the division ( $\div$ ) and equals ( $=$ ) signs.	b) Write and calculate mathematical statements for division using the multiplication tables that pupils know, including for two-digit numbers divided by one-digit numbers, using mental and progressing to formal written methods.
			c) Solve problems, including missing number problems, involving multiplication and division.



# Fractions

	Content domain references	End of Year 3	End of Year 4
<b>Fractions</b>	<b>F1</b> Fractions of numbers.	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators (minimum denominators of 2, 3, 4, 5, 8, 10).	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators (minimum denominators of 2, 3, 4, 5, 6, 7, 8, 9, 10).
	<b>F2</b> Decimals		Count up and down in tenths; recognize that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.
	<b>F3</b> Types of fractions.	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
	<b>F4</b> Equivalent fractions.	Recognise & show, using diagrams, equivalent fractions with small denominators.	Recognise and show, using diagrams, families of common equivalent fractions.
	<b>F5</b> Calculations with fractions.	Add and subtract fractions with the same denominator within one whole [e.g. $\frac{1}{7} + \frac{5}{7} = \frac{6}{7}$ ].	Add and subtract fractions with the same denominator within one whole (including improper fractions).