



Mathematics - Progression of Fluency Skills

EYFS to Year 6

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Counting	Count an irregular arrangement of up to ten objects. 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	Count to and cross 100, forwards and backwards, beginning with 0 or 1, or from any given number 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;	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 1 000 000	Use negative numbers in context, and calculate intervals across zero Consolidation of all previous year group counting skills
Addition and Subtraction	Find the total number of items in two groups by counting all of them. Say the number that is one more than a given number. Find one more or one less from a group of up to five objects, then ten objects. Find number bonds to 10 See Appendix 1	Add and subtract 1 Find doubles of numbers to 5 Add and subtract 2 to a number Add and subtract 0 to/from a number Calculate the ones without a family: 5 + 3, 3 + 5, 6 + 3, 3 + 6 See Appendix 1	Find doubles: 7 + 7 Find near doubles: 8 + 9 = 8 + 8 + 1 Use bridging for +/-: 8 + 9 = 8 + 2 + 7 Use compensation: 8 + 9 = 8 + 10 - 1	Add and subtract multiples of 10 where the answer is between 0 and 100 (e.g. 70 + 30 = 100, 20 + 40 = 60) Find double and halves of multiples of 10 to 100 (e.g. double 60 = 120)	Add and subtract multiples of 10 (e.g. 70 + 30 = 100, 50 + 60 = 110, 20 + 40 = 60) Add and subtract multiples of 100 where the answer is 1,000 or less (e.g. 300 + 400 = 700, 400 + 600 = 1,000); Find double and halves of multiples of 10 to 100 (e.g. double 60 = 120, half 50 = 25);	Add and subtract multiples of 10 (e.g. 70 + 30 = 100, 50 + 60 = 110, 20 + 40 = 60) Add and subtract multiples of 100 (e.g. 300 + 400 = 700, 400 + 600 = 1,000, 800 + 500 = 1,300) Add and subtract multiples of 1000 (e.g. 3000 + 4000 = 7000) Find double and halves of multiples of 10 to 100 (e.g. double 60 = 120, half 50 = 25)	Perform mental calculations including with mixed operations and large numbers Use knowledge of the order of operations to carry out calculations involving the four operations

Multiplication and Division

Know and recall multiplication and division facts $\times 2$, $\times 10$ and $\times 5$.
See Appendix 2

Know and recall multiplication and division facts $\times 3$, $\times 4$ and $\times 8$.
Multiply two-digit number by 10. (e.g. $24 \times 10 = 240$)
See Appendix 2

Know and recall multiplication and division facts $\times 6$, $\times 7$, $\times 9$, $\times 11$ and $\times 12$
Multiply two-digit numbers by 10 (e.g. $24 \times 10 = 240$);
Find halves of any even number to 100 (e.g. half of 22 = 11);
Multiply any two and three-digit number by 10 and 100 (e.g. $24 \times 100 = 2,400$)

Recognise and use factor pairs and commutativity in mental calculations
See Appendix 2

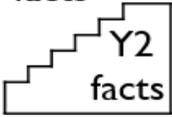
Find quadruples ($\times 4$) of all numbers to 10 (e.g. $6 \times 4 = 24$)
Multiply two-digit number by 10. (e.g. $24 \times 10 = 240$)
Find halves of any number to 100 (e.g. half of 22 = 11, half of 51 = 25.5)
Multiply and divide any number by 10 and 100 (e.g. $24 \times 100 = 2,400$, $45 \div 100 = 0.45$, $3.4 \times 10 = 34$);

Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
Establish whether a number up to 100 is prime and recall prime numbers up to 19
Know squares of all number up to 12
Know cubes of 2,3,4 and 5.

Perform mental calculations, including with mixed operations and large numbers
Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$)
Identify common factors, common multiples and prime numbers

Appendix 1

Adding 1	Bonds to 10	Adding 10	Bridging/ compensating
Adding 2	Adding 0	Doubles	Near doubles

Y1 facts


+	0	1	2	3	4	5	6	7	8	9	10
0	0 + 0	0 + 1	0 + 2	0 + 3	0 + 4	0 + 5	0 + 6	0 + 7	0 + 8	0 + 9	0 + 10
1	1 + 0	1 + 1	1 + 2	1 + 3	1 + 4	1 + 5	1 + 6	1 + 7	1 + 8	1 + 9	1 + 10
2	2 + 0	2 + 1	2 + 2	2 + 3	2 + 4	2 + 5	2 + 6	2 + 7	2 + 8	2 + 9	2 + 10
3	3 + 0	3 + 1	3 + 2	3 + 3	3 + 4	3 + 5	3 + 6	3 + 7	3 + 8	3 + 9	3 + 10
4	4 + 0	4 + 1	4 + 2	4 + 3	4 + 4	4 + 5	4 + 6	4 + 7	4 + 8	4 + 9	4 + 10
5	5 + 0	5 + 1	5 + 2	5 + 3	5 + 4	5 + 5	5 + 6	5 + 7	5 + 8	5 + 9	5 + 10
6	6 + 0	6 + 1	6 + 2	6 + 3	6 + 4	6 + 5	6 + 6	6 + 7	6 + 8	6 + 9	6 + 10
7	7 + 0	7 + 1	7 + 2	7 + 3	7 + 4	7 + 5	7 + 6	7 + 7	7 + 8	7 + 9	7 + 10
8	8 + 0	8 + 1	8 + 2	8 + 3	8 + 4	8 + 5	8 + 6	8 + 7	8 + 8	8 + 9	8 + 10
9	9 + 0	9 + 1	9 + 2	9 + 3	9 + 4	9 + 5	9 + 6	9 + 7	9 + 8	9 + 9	9 + 10
10	10 + 0	10 + 1	10 + 2	10 + 3	10 + 4	10 + 5	10 + 6	10 + 7	10 + 8	10 + 9	10 + 10

Appendix 2

- Year 2 facts
- Year 3 facts
- Year 4 facts

x	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144