Whole School Multiplicative Facts Overview

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Additive Facts	1NF–1 Develop fluency in addition and subtraction facts within 10.	2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.	3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.			
Multiplicative Facts	**1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers**		**3NF–2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.**	**4NF–1 Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number.**	**5NF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.**	
				4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.		
Application of Facts			3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).	4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).	

Year 1 Multiplicative Facts 1NF–2

Year 1	Number Roll	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 1		Counting in tens forward on number line. 10,20,30	Counting in tens forward on number line. 10,20,30	Counting in tens backwards on number line. 100,90,80	Counting in tens backwards on number line. 100,90,80	Learn number roll with hand gestures 10s	Learn number roll with hand gestures 10s
Autumn 2	10s	Counting in 2s (link to even) forward on number line. 2,4,6	Counting in 2s forward on number line. 2,4,6	Counting in 2s backwards on number line. 20,18,16	Counting in 2s backwards on number line. 20,18,16	Learn number roll with hand gestures 2s	Learn number roll with hand gestures 2s
Spring 1	10s, 2s	Counting odds forward on number line. 1,3,5	Counting odds forward on number line. 1,3,5	Counting odds backwards on number line. 19,17,15	Counting odds backwards on number line. 19,17,15	Counting odds forwards without number line. 19,17,15	Counting odds backwards without number line. 19,17,15
Spring 2	10s, 2s	Counting in 5s forward on number line. 5,10,15	Counting in 5s forward on number line. 5,10,15	Counting in 5s backwards on number line. 50, 45, 40	Counting in 5s backwards on number line. 50, 45, 40	Learn number roll with hand gestures 5s	Learn number roll with hand gestures 5s
Summer 1	10s, 2s, 5s	Practise number roll fro 2s, 5s, 10s	Count forwards/backwards in 10s from any multiple of ten	Count forwards/backwards in 10s from any 1 digit/2 digit number.	Count forwards/backwards in 2s from any even number	Count forwards/backwards in 2s from any odd number	Count forwards/backwards in 5s from any multiple of 5.
Summer 2	10s, 2s, 5s	Count in groups of 10 1 group of ten is ten, 2 groups of ten are 20.etc and start to use for real problems.	Count in groups of 10 1 ten is ten, 2 tens are tens are 20.etc and start to use for real problems.	Count in groups of 2 1 group of two is two, 2 groups of two are 4.etc and start to use for real problems.	Count in groups of 2 1 two is two, 2 twos are 4.etc and start to use for real problems.	Count in groups of 5 1 group of five is five, 2 groups of five are 10.etc and start to use for real problems.	Count in groups of 5 1 five is five, 2 fives are 10.etc and start to use for real problems.

Year 2 Multiplicative Facts (**learnt with inverse division facts**) 1NF–2 3NF–2

Year 2	**Number Roll**	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**
Autumn 1	10s, 2s, 5s	Count in groups of 10 1 group of ten is ten, 2 groups of ten are 20.etc and start to use for real problems.	Count in groups of 10 1 ten is ten, 2 tens are tens are 20.etc and start to use for real problems.	Count in groups of 2 1 group of two is two, 2 groups of two are 4.etc and start to use for real problems.	Count in groups of 2 1 two is two, 2 twos are 4.etc and start to use for real problems.	Count in groups of 5 1 group of five is five, 2 groups of five are 10.etc and start to use for real problems.	Count in groups of 5 1 five is five, 2 fives are 10.etc and start to use for real problems.
Autumn 2	10s, 2s, 5s	Counting in threes forward on number line. 3 ,6 ,9	Counting in threes forward on number line. 3 ,6 ,9	Counting in threes backwards on number line. 36, 33, 30	Counting in threes backwards on number line. 36, 33, 30	Learn number roll with hand gestures 3s	Learn number roll with hand gestures 3s
Spring 1 Start TT Rockstars	10s, 2s, 5s, 3s	1 x 10	2 x 10	3 x 10	4 x 10	5 x 10	6 x 10
Spring 2	10s, 2s, 5s, 3s	7 x 10	8 x 10	9 x 10	10 x 10	11 x 10	12 x 10
Summer 1	10s, 2s, 5s, 3s	1 x 2	2 x 2	3 x 2	4 x 2	5 x 2	6 x 2
Summer 2	10s, 2s, 5s, 3s	7 x 2	8 x 2	9 x 2	10 x 2	11 x 2	12 x 2

Year 3 Multiplicative Facts (**learnt with inverse division facts**) **3NF–2 3NF–3**

Year 3	**Number Roll**	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**
Autumn 1	10s, 2s, 5s, 3s Learn 4s	1 x 5	2 x 5	3 x 5	4 x 5	5 x 5	6 x 5
Autumn 2	10s, 2s, 5s, 3s, 4s Learn 8s	7 x 5	8 x 5	9 x 5	10 x 5	11 x 5	12 x 5
Spring 1	10s, 2s, 5s, 3s, 4s, 8s Learn 6s	2 x 4	3 x 4	4 x 4	5 x 4	6 x 4	7 x 4
Spring 2	10s, 2s, 5s, 3s, 4s, 8s, 6s Learn 9s	8 x 4	9 x 4	11 x 4	12 x 4	2 x 8	3 x 8
Summer 1	10s, 2s, 5s, 3s, 4s, 8s, 6s, 9s Learn 7s	4 x 8	5 x 8	6 x 8	7 x 8	8 x 8	9 x 8
Summer 2	10s, 2s, 5s, 3s, 4s, 8s, 6s, 9s, 7s Learn 11/12s	11 x 8	12 x 8	Apply place-value knowledge to known multiplicative number facts (scaling facts by 10). Multiplication e.g. 30 x 5 = 150 x2 x5 x10	Apply place-value knowledge to known multiplicative number facts (scaling facts by 10).Multiplication e.g. 30 x 4 = 120 x4 x8	Apply place-value knowledge to known multiplicative number facts (scaling facts by 10). Division e.g. 150 ÷ 50 = 3 x2 x5 x 10	Apply place-value knowledge to known multiplicative number facts (scaling facts by 10). Division e.g. 120 ÷ 40 = 3 x4 x8

Year 4s Multiplicative Facts (**learnt with inverse division facts**) **4NF–1 4 NF-2 3NF–3/ 4NF–3**

Year 4	Number Roll	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 1	All	2 x 2 and application scaling by 10/100. **E.g** 20 x 2 = 40 200 x 2 = 400 40 ÷ 2 = 20 400 ÷ 2 = 200	3 x 2 and application scaling by 10/100.	4 x 2 and application scaling by 10/100.	5 x 2 and application scaling by 10/100.	6 x 2 and application scaling by 10/100.	7 x 2 and application scaling by 10/100.
Autumn 2	All	8 x 2 and application scaling by 10/100.	9 x 2 and application scaling by 10/100.	3 x 3 and application scaling by 10/100.	4 x 3 and application scaling by 10/100.	5 x 3 and application scaling by 10/100.	6 x 3 and application scaling by 10/100.
Spring 1	All	7 x 3 apply to division with remainders and application scaling by 10/100.	8 x 3 apply to division with remainders and application scaling by 10/100..	9 x 3 apply to division with remainders and application scaling by 10/100.	4 x 4 apply to division with remainders and application scaling by 10/100.	5 x 4 apply to division with remainders and application scaling by 10/100.	6 x 4 apply to division with remainders and application scaling by 10/100.
Spring 2	All	7 x 4 apply to division with remainders and application scaling by 10/100.	8 x 4 apply to division with remainders and application scaling by 10/100.	9 x 4 apply to division with remainders and application scaling by 10/100.	5 x 5 apply to division with remainders and application scaling by 10/100.	6 x 5 apply to division with remainders and application scaling by 10/100.	7 x 5 apply to division with remainders and application scaling by 10/100.
Summer 1	All	8 x 5 apply to division with remainders and application scaling by 10/100.	9 x 5 apply to division with remainders and application scaling by 10/100.	6 x 6 apply to division with remainders and application scaling by 10/100.	7 x 6 apply to division with remainders and application scaling by 10/100.	8 x 6 apply to division with remainders and application scaling by 10/100.	9 x 6 apply to division with remainders and application scaling by 10/100.
Summer 2	All	7 x 7 apply to division with remainders and application scaling by 10/100.	8 x 7 apply to division with remainders and application scaling by 10/100.	9 x 7 apply to division with remainders and application scaling by 10/100.	8 x 8 apply to division with remainders and application scaling by 10/100.	9 x 8 apply to division with remainders and application scaling by 10/100.	9 x 9 apply to division with remainders and application scaling by 10/100.

Year 5s Multiplicative Facts (**learnt with inverse division facts**) **4NF–1 3NF–3/ 4NF–3**

Year 1	**Number Roll**	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**
Autumn 1	All	2 x 2 and application scaling by 100/ 0.1 or 0.01 E.g 200 x 2 = 400 0.2 x 2 = 0.4 0.02 x 2 = 0.04 400 ÷ 2 = 200 0.4 ÷ 2 = 0.2 0.4 ÷ 0.2 = 2	3 x 2 and application scaling by 10/100.	4 x 2 and application scaling by 10/100.	5 x 2 and application scaling by 10/100.	6 x 2 and application scaling by 10/100.	7 x 2 and application scaling by 10/100.
Autumn 2	All	8 x 2 and application scaling by 10/100.	9 x 2 and application scaling by 10/100.	3 x 3 and application scaling by 10/100.	4 x 3 and application scaling by 10/100.	5 x 3 and application scaling by 10/100.	6 x 3 and application scaling by 10/100.
Spring 1	All	7 x 3 and application scaling by 10/100.	8 x 3 and application scaling by 10/100.	9 x 3 and application scaling by 10/100.	4 x 4 and application scaling by 10/100.	5 x 4 and application scaling by 10/100.	6 x 4 and application scaling by 10/100.
Spring 2	All	7 x 4 and application scaling by 10/100.	8 x 4 and application scaling by 10/100.	9 x 4 and application scaling by 10/100.	5 x 5 and application scaling by 10/100.	6 x 5 and application scaling by 10/100.	7 x 5 and application scaling by 10/100.
Summer 1	All	8 x 5 and application scaling by 10/100.	9 x 5 and application scaling by 10/100.	6 x 6 and application scaling by 10/100.	7 x 6 and application scaling by 10/100.	8 x 6 and application scaling by 10/100.	9 x 6 and application scaling by 10/100.
Summer 2	All	7 x 7 and application scaling by 10/100.	8 x 7 and application scaling by 10/100.	9 x 7 and application scaling by 10/100.	8 x 8 and application scaling by 10/100.	9 x 8 and application scaling by 10/100.	9 x 9 and application scaling by 10/100.

The full set of multiplication calculations that pupils need to be able to solve by automatic recall are shown in the table below. Pupils must also have automatic recall of the corresponding division facts.

1 × 1	1 × 2	1 × 3	1 × 4	1 × 5	1 × 6	1 × 7	1 × 8	1 × 9	1 × 10	1 × 11	1 × 12
2 × 1	2 × 2	2 × 3	2 × 4	2 × 5	2 × 6	2 × 7	2 × 8	2 × 9	2 × 10	2 × 11	2 × 12
3 × 1	3 × 2	3 × 3	3 × 4	3 × 5	3 × 6	3 × 7	3 × 8	3 × 9	3 × 10	3 × 11	3 × 12
4 × 1	4 × 2	4 × 3	4 × 4	4 × 5	4 × 6	4 × 7	4 × 8	4 × 9	4 × 10	4 × 11	4 × 12
5 × 1	5 × 2	5 × 3	5 × 4	5 × 5	5 × 6	5 × 7	5 × 8	5 × 9	5 × 10	5 × 11	5 × 12
6 × 1	6 × 2	6 × 3	6 × 4	6 × 5	6 × 6	6 × 7	6 × 8	6 × 9	6 × 10	6 × 11	6 × 12
7 × 1	7 × 2	7 × 3	7 × 4	7 × 5	7 × 6	7 × 7	7 × 8	7 × 9	7 × 10	7 × 11	7 × 12
8 × 1	8 × 2	8 × 3	8 × 4	8 × 5	8 × 6	8 × 7	8 × 8	8 × 9	8 × 10	8 × 11	8 × 12
9 × 1	9 × 2	9 × 3	9 × 4	9 × 5	9 × 6	9 × 7	9 × 8	9 × 9	9 × 10	9 × 11	9 × 12
10 × 1	10 × 2	10 × 3	10 × 4	10 × 5	10 × 6	10 × 7	10 × 8	10 × 9	10 × 10	10 × 11	10 × 12
11 × 1	11 × 2	11 × 3	11 × 4	11 × 5	11 × 6	11 × 7	11 × 8	11 × 9	11 × 10	11 × 11	11 × 12
12 × 1	12 × 2	12 × 3	12 × 4	12 × 5	12 × 6	12 × 7	12 × 8	12 × 9	12 × 10	12 × 11	12 × 12

Pupils must be fluent in these facts by the end of year 4, and this is assessed in the multiplication tables check. Pupils should continue with regular practice through year 5 to secure and maintain fluency.

The 36 most important facts are highlighted in the table. Fluency in these facts should be prioritised because, when coupled with an understanding of commutativity and fluency in the formal written method for multiplication, they enable pupils to multiply any pair of numbers.

Pupils should learn the multiplication tables in the ‘families’ described in the progression table – making connections between the multiplication tables in each family will enable pupils to develop automatic recall more easily, and provide a deeper understanding of multiplication and division.

Read the guidance below for further information.
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