

Mathematical Fluency Policy

- We aim to foster mathematical fluency in students by providing a structured approach with a focus on pupils understanding the structure of numbers using images initially, progressing to an abstract approach
- We teach and practice efficient mental strategies for addition and subtraction in KS1 and multiplication tables practice in KS2
- We provide pupils with discrete, daily extensive recall opportunities which supplement fluency practice within Maths lessons

Curriculum

Year R: Maths Mastery (NCETM)

Year 1: Fluency Bee

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Percept	ual and cor subitising	nceptual	Cc	omposition t	0 5	Comparison to 5		nore (within 5) less (within 5)		Compos an	
Spring	Review of previous learning	Compos and		Compos	nposition of 10 Comp		arison to 10	n to 10 subtraction		1 more (within 10)		ithin 10)
Summer	Add and subtract with <u>0</u>	Odd and even numbers	Doubles to 10	Add 2	Subtract 2	Final facts	Ten and a bit (11-15)	Ten and a bit (16-20)	Comparison to 20	Count in 10s	Count in 5s	Count in 2s

		Stage 1	Stage 2				
Block 1 Perceptual subitising	Block 2 Conceptual subitising	Block 3 Composition to 5	Block 4 Comparison to 5	Block 5 1 more (within 5)	Block 6 1 less (within 5)	Block 1 Composition of 6 and 7	Block 2 Composition of 8 and 9

Stag	ge 2		Stage 3								
Block 3 Composition of 10	Block 4 Comparison to 10	Block 1 Introduction to addition and subtraction	Block 2 1 more (within 10)	Block 3 1 less (within 10)	Block 4 Add and subtract with 0	Block 5 Odd and even numbers	Block 6 Doubles to 10				

Stage 3	Stag	e 4		Stage 5			
Block 7Block 8Block 9Add 2Subtract 2Final facts	Block 1 Block Ten and a bit Ten and 11–15 16–2	a bit Comparison	Block 1 Count in 10s	Block 2 Count in 5s	Block 3 Count in 2s		



Year 2: Fluency Bee

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
Autum n			Composition to 5			Compari son to 5	1 more (within 5) 1 less (within 5)			Composition of 6 and 7			
Spring	Review of previous learning	Compos an	ition of 8 d 9	Composi	tion of 10	Compari	son to 10	Introduct ion to addition and subtracti on	1 more (v	1 more (within 10)		1 less (within 10)	
Summe r	Review of previous learning	Add and subtract with 0	Odd and even numbers	Add 2	Subtract 2	Final facts	Ten and a bit (11- 15)	Ten and a bit (16- 20)	Compari son to 20	Count in 10s	Count in 5s	Count in 2s	

			Stage 2						
Block 1 6 and 7	Block 2 8 and 9	Block 3 10	Block 4 Comparison to 10	Block 5 Addition and subtraction	Block 6 Ten and a bit	Block 7 Comparison to 20	Block 1 1 more (within 20)	Block 2 1 less (within 20)	Block 3 Make connections

	:	Stage 2	Stage 3					
Block 4 Odd and even	Block 5 Doubles to 20	Block 6 Near doubles	Block 7 Add 2	Block 8 Subtract 2	Block 1 Add through 10	Block 2 Subtract through 10	Block 3 Bonds to 20	

Stage	4		Stage 5								
Block 1 How many?	Block 2 Comparison to 100	Block 1 Introduction to multiplication and division	Block 2 The 2 times-table	Block 3 The 10 times-table	Block 4 The 5 times-table						

Year 3: Times tables (Third Space Learning)

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	2x, 5x and 10x (missing numbers and related division facts)	3x (from 0x to 12x in order)	3x (from 0x to 12x in any order)	3x (from 0x to 12x missing numbers and division facts)	3x (from 0x to 12x missing numbers and division facts)	4x (from 0x to 12x in order)	4x (from 0x to 12x in order)	4x (from 0x to 12x in order)	4x (from 0x to 12x in order) order)			
Spring	2x, 5x, 3x and 10x (missing numbers and related division facts)	4x (from 0x to 12x in order)	8x (from 0x to 12x in order)	4x (from 0x to 12x in any order)	4x (from 0x to 12x missing numbers and division facts)	4x (from 0x to 12x missing numbers and division facts)	8x (from 0x to 12x in order)	8x (from 0x to 12x in order)	8x (from 0x to 12x in order)			
Summer	2x, 5x, 3x, 4x and 10x (missing numbers and related division facts)	8x (from 0x to 12x in order)	8x (from 0x to 12x in any order)	2x, 5x, 3x, 4x and 10x (missing numbers and related division facts)	8 x (from 0x to 12x in any order)	8x (from 0x to 12x missing numbers and division facts)	8x (from 0x to 12x missing numbers and division facts)	Review of 2x, 5x, 3x, 4x, 8x and 10x	2x, 5x, 3x, 4x, 8x and 10x (missing numbers and related division facts)			

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Autumn 1	Count in multiples of 3 to 12x3 in order from 0 fluently.
Autumn 2	Recall multiples of 3 up to 12x3 in any order, including missing numbers and related division facts with growing fluency.
	Count in multiples of 4 to $12x4$ in order from 0 with growing fluency. Introduce (relating to x4) and begin to count in multiples of 8 from 0 to $12x8$.
Spring 1	Recall multiples of 3 up to 12x3 in any order, including missing numbers and related division facts fluently.
	Count in multiples of 4 to 12x4 in order from 0 with fluently.
	Count in multiples of 8 to 12x8 in order from 0 with growing fluency.
Spring 2	Recall multiples of 4 up to 12x4 in any order, including missing numbers and related division facts with growing fluency.
	Count in multiples of 8 to 12x8 in order from 0 fluently.
Summer 1	Recall multiples of 4 up to 12x4 in any order, including missing numbers and related division facts fluently.
	Recall multiples of 8 up to 12x8 in any order, including missing numbers and related division facts with growing fluency.
Summer 2	Recall multiples of 8 up to 12x8 in any order, including missing numbers and related division facts fluently.
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Year 4: Times tables (Third Space Learning)

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	2x, 5x and 10x (missing numbers and related division facts)	3x, 4x and 8x (missing numbers and related division facts)	2x, 5x, 10x, 3x, 4x and 8x (missing numbers and related division facts)	6x (from 0x to 12x in order)	6x (from 0x to 12x in order)	6x (from 0x to 12x in order)	6x (from 0x to 12x in order)	6x (from 0x to 12x in any order)	6x (from 0x to 12x in any order)	6x (from 0x to 12x missing numbers and division facts)	6x (from 0x to 12x missing numbers and division facts)	7x (from 0x to 12x in order)
Spring	2x, 5x, 10x, 3x, 4x, 6x and 8x (missing numbers and related division facts)	7x (from 0x to 12x in order)	7x (from 0x to 12x in order)	7x (from 0x to 12x in any order)	7x (from 0x to 12x in any order)	7x (from 0x to 12x missing numbers and division facts)	7x (from 0x to 12x missing numbers and division facts)	9x (from 0 x to 12x in order)	9x (from 0x to 12x in any order)	9x (from 0x to 12x missing numbers and division facts)	11x (from 0 x to 12x in order)	11x (from 0x to 12x in any order)
Summer	2x, 5x, 10x, 3x, 4x, 6x, 7x, 9x and 8x (missing numbers and related division facts)	11x (from 0x to 12x in any order) 11x (from 0x to 12x missing numbers and division facts)	12x (from 0x to 12x in order)	12x (from 0x to 12x in any order)	12x (from 0x to 12x missing numbers and division facts)	All times tables recall (in any order includin g related division facts)			iddress misc bles recall (divi			



Autumn 1	Recall multiples of 3,4 and 8 up to 12x in any order, including missing numbers and related division facts fluently.
	Fluently count in 6's in order up to 12x6, using multiples of 3 to support.
Autumn 2	Recall multiples of 6 in any order, including missing numbers and related division facts with growing fluency.
	Fluently count in 7's in order up to 12x7.
Spring 1	Recall multiples of 6 in any order, including missing numbers and related division facts fluently.
	Recall multiples of 7 in any order, including missing numbers and related division facts with growing fluency.
Spring 2	Recall multiples of 7 in any order, including missing numbers and related division facts fluently.
	Fluently count in 9's in order up to 12x9. Fluently count in 11's in order up to 12x11.
Summer 1	Recall multiples of 9 in any order, including missing numbers and related division facts with growing fluency (using 10x and adjusting by 1 group to find 9x as a strategy)
	Recall multiples of 11 in any order, including missing numbers and related division facts fluently.
	Fluently count in 12's in order up to 12x12.
Summer 2	Recall multiples of 9 in any order, including missing numbers and related division facts fluently.
	Recall multiples of 12 in any order, including missing numbers and related division facts with growing fluency (using 10x and adjusting by adding 2 more groups).



Year 5: Times tables and practice of other mathematical facts

Times tables (Third Space Learning and UL)

Autumn Term	Recall multiples of 12 in any order, including missing numbers and related division facts fluently.
	Recall multiples of all times tables up to 12x12 in any order, including missing numbers and related division facts with growing fluency.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	2x, 5x, 3x and 10x (in any order)	2x, 5x, 3x and 10x (missing numbers and related division facts)	6x, 4x, and 8x (in any order)	6x, 4x, and 8x (missing numbers and related division facts)	7x ,9x and 11x (in any order)	7x, 9x and 11x (missing numbers and related division facts)	12x (from 0x to 12x in order)	12x (from 0x to 12x in order)	12x (from 0x to 12x in any order)	12x (from 0x to 12x in any order)	12x (from 0x to 12x missing numbers and division facts)	12x (from 0x to 12x missing numbers and division facts)
Spring	2x, 5x, 3x and 10x (in any order missing numbers and related division facts)	6x, 4x, and 8x (in any order missing numbers and related division facts)	7x, 9x, 11x and 12x (in any order missing numbers and related division facts)	7x, 9x, 11x and 12x (in any order missing numbers and related division facts)	All times tables recall (in any order includin g related division facts)	All times tables recall (in any order includin g related division facts)	 Revisit and address misconceptions within times tables order All times tables recall (in any order including related division facts) 					
Summer				All times		all (in any or	nging times der includir division fac	ng related c	livision fact	5)		

Year 6: Times tables and practice of other mathematical facts

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autum n	2x, 5x, 3x and 10x(in any order missing numbers and related division facts)	6x, 4x, and 8x (in any order missing numbers and related division facts)	7x, 9x, 11x and 12x (in any order missing numbers and related division facts)	7x, 9x, 11x and 12x (in any order missing numbers and related division facts)	All times tables recall (in any order including related division facts)	All times tables recall (in any order including related division facts)	• All†		misc recall (in a	times table conceptions ny order inc facts) n division fa	luding relat	
Spring	All times tables recall (in any order including related division facts)	All times tables recall (in any order including related division facts) Review multiples and common multiples	All times tables recall (in any order including related division facts) Review factors and common factors	All times tables recall (in any order including related division facts) Review square numbers	All times tables recall (in any order including related division facts) Review cube numbers	recall (in a including division Review com	All times tables recall (in any order including related division facts) Review FDP common conversions		s tables any order g related n facts) aultiplying ers by 10, d 1000	All time recall (in including divisior Review d numbers l and	any order g related n facts) ividing all by 10, 100	Adress misconc eptions
Summe				1	•		misconcept			1		1
'				•		allenging co alogue cloc						



Years 1-2 weekly fluency practice

Suggested Activities
Complete activities from Fluency Bee following the provided slides.
Teachers to use their own discretion on whether pupils will need to
complete the worksheet or if they need to complete it as part of
home learning (I.e., pupils would not complete a worksheet for
subitising but may need to for comparisons to 5).
Weekly challenges/ Assessment questions

Years 3-6 weekly fluency practice

Day	Suggested Activities					
1	Recite and recall (this could be through a song/learning by chanting)					
2	Recite and recall (products covered and pupils can complete a sheet where they fill in the products)					
3	Explore commutativity (this could be through arrays or as displayed below. Pupils can complete a sheet where they fill in the products)					
	$4 \times 5 = 20 = 5 \times 4$					
4	Games and activities (Kagan structures such as Quiz-Quiz-Trade or Fizz					
	Buzz or on TTRS)					
5	Assessment grid					

Early Morning Work

Twice a week, pupils are provided with opportunities for retrieval practice and interleaving learning using 'Flashback 4' resources or resources curated by teachers based on previous learning.

Assessment

- Pupils complete weekly challenges (based on the fluency learning for that week in Key Stage 1 and multiplication tables in Key Stage 2)
- Pupils complete half-termly assessment grids (based on addition and subtract facts in Key Stage 1 and multiplication tables in Key Stage 2)

Continued practice and provision

- Pupil are able to practise addition and subtraction at home through Numbots
- Pupils are able to practise multiplication and division at home through Times Tables Rockstars