



Mathematics Fluency Policy (DRAFT)

At Katherine Semar Schools, there is an expectation that all children in Years 1-6 will be provided with the opportunity to practise their year group's fluency facts through daily fluency sessions. These daily fluency sessions will contribute to the children becoming secure and fluent with the relevant number facts by the end of the year.

Children will also be expected to practise their fluency facts regularly at home through set homework or suggested on the home learning letter. Any children who are struggling to learn their fluency facts should be provided with interventions where possible and further support from home with advice provided from the class teacher.

Fluency facts can be learnt and practised in a number of ways, some suggested activities are as follows:

- stand up, hand up, pair up
- flash cards
- orally practised e.g. ping pong facts
- written activities such as mini tests or quizzes
- matching activities
- dominoes
- rolling dice
- test your partner
- snap
- memory games
- Simon/Sally sharp eyes
- Simon says
- Bunny ears
- counting sticks

10 Minute Maths Fluency Focus

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Number Sense	Number Sense	Number Sense	Number Sense	Number Sense	Number Sense
Year 1	Number Sense	Number Sense	Number Sense	Number Sense	Number Sense	Number Sense
Year 2	-Revisit Y1 number facts (addition and subtraction from table – see below) -Counting to 100 forwards and backwards.	Addition and Subtraction facts (as timetabled – see below)	Number bonds to 10, 20 and Bonds of 10 up to 100	Doubles and Halves to 20	Multiplication and division facts for 2, 5 and 10	Multiplication and division facts for 2, 5 and 10
Year 3	Number bonds to 100	Revision of multiplication and Division facts for 2, 5, 10.	Multiplication and Division facts multiplying by 1 and 0.	Multiplication and Division facts for 3, 4 and 8	Multiplication and Division facts for 3, 4 and 8	Multiplication and Division facts for 3, 4 and 8
Year 4	Multiplication facts 2,5,10	Multiplication facts 3,4,8	Multiplication facts 6,7,9	Multiplication facts Up to 12 x 12	Division Facts	Review of required facts – T assessment
Year 5	Multiples of 10 & 100 for multiplication facts 12 x 12	Count in negative numbers and know Roman numerals	Double and Halve any number with up to 1 decimal place	Know all decimals that total 1 and 10 (1 and 2 decimal places)	Recall metric conversions	Recall prime numbers to 50
Year 6	Squared, cubed and square roots	Know decimal, fraction, percentage equivalents	Recall prime numbers to 50	Doubles and halves of all multiples of 10 to 10,000	Square numbers of multiples of 10 up to 1000	

In Autumn term 2023, we invested in a fluency program called Number Sense. From January 2024 Year 1 are implementing this as a basis for their '10 minute maths' (10MM). Early Years are also using the Early Years fluency program alongside their current mathematics teaching. Once we have implemented and reflected on the use of Number Sense in Early Years and Year 1, we aim to roll this out across KS1 September 2024.

Addition and Subtraction Facts

Fluency also means automatic recall of key facts. These are the facts which children should be able to recall at the end of each year group. They will need to explicitly be taught strategies (doubles and near doubles, compensating etc.) to work them out as well as lots of practice in order to achieve automaticity in recall. Children are expected to learn all addition facts relevant to their year group as well as the inverse subtraction 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

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

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Addition Grid 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

■ Number
■ Sense
■ Maths

Subtraction Grid Facts

-	0	1	2	3	4	5	6	7	8	9	10
0	0-0										
1	1-0	1-1									
2	2-0	2-1	2-2								
3	3-0	3-1	3-2	3-3							
4	4-0	4-1	4-2	4-3	4-4						
5	5-0	5-1	5-2	5-3	5-4	5-5					
6	6-0	6-1	6-2	6-3	6-4	6-5	6-6				
7	7-0	7-1	7-2	7-3	7-4	7-5	7-6	7-7			
8	8-0	8-1	8-2	8-3	8-4	8-5	8-6	8-7	8-8		
9	9-0	9-1	9-2	9-3	9-4	9-5	9-6	9-7	9-8	9-9	
10	10-0	10-1	10-2	10-3	10-4	10-5	10-6	10-7	10-8	10-9	10-10
11		11-1	11-2	11-3	11-4	11-5	11-6	11-7	11-8	11-9	11-10
12			12-2	12-3	12-4	12-5	12-6	12-7	12-8	12-9	12-10
13				13-3	13-4	13-5	13-6	13-7	13-8	13-9	13-10
14					14-4	14-5	14-6	14-7	14-8	14-9	14-10
15						15-5	15-6	15-7	15-8	15-9	15-10
16							16-6	16-7	16-8	16-9	16-10
17								17-7	17-8	17-9	17-10
18									18-8	18-9	18-10
19										19-9	19-10
20											20-10

Calculation Strategies

One Place, One Line

Two Place, Two Lines, Think Ones and Tens

Number 10 Fact Families

Five and 10

Know About Zero

Doubles and Near Doubles

Number Neighbours, Spot the Difference

4 Tens, 4 Squares

Ten and 10

Make 10 and Then

Adjusting

Swap It

Number Sense Maths EYFS

Autumn 1	<div>Book 1</div> <div>Subitising</div> <div>1 and 2</div> <div>Book 2</div> <div>Subitising</div> <div>1 to 3</div>
Autumn 2	<div>Book 3</div> <div>Subitising</div> <div>1 to 4</div> <div>Book 4</div> <div>Subitising</div> <div>1 to 5</div>
Spring 1	<div>Book 6</div> <div>Partitioning</div> <div>2</div> <div>Book 7</div> <div>Partitioning</div> <div>3</div> <div>Book 8</div> <div>Partitioning</div> <div>4</div> <div>Book 9</div> <div>Partitioning</div> <div>5</div> <div>Book 5</div> <div>Subitising</div> <div>6 to 10</div>
Spring 2	<div>Book 5</div> <div>Subitising</div> <div>6 to 10</div> <div>Book 10</div> <div>Partitioning</div> <div>10</div>
Summer 1	<div>Book 11</div> <div>Composition of</div> <div>6 to 9</div> <div>Book 12</div> <div>Comparing quantities</div> <div>to 10</div>
Summer 2	<div>Book 13</div> <div>Patterns in numbers</div> <div>to 10</div>

Year 1


Yearly Overview


	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	Stage 1 Book 1	Stage 1 Book 2	Stage 1 Book 3	Stage 1	Stage 2 Book 1	Stage 2 Book 2	Stage 2 Book 3
	Subitising 1 - 5	Subitising 6 - 10	Subitising on tens frames	Gap teaching and consolidation	Make and Break 5	Make and Break 4, 3 & 2	Make and Break 10
Autumn 2	Stage 2 Book 4	Stage 2 Book 5	Stage 2 Book 6	Stage 2 Book 7	Stage 2	Stage 2	
	Make and Break 6	Make and Break 7	Make and Break 8	Make and Break 9	Gap teaching and consolidation	Gap teaching and consolidation	
Spring 1	Stage 3 Book 1	Stage 3 Book 1	Stage 3 Book 2	Stage 3 Book 2	Stage 3 Book 3	Stage 3 Book 3	
	One More, One Less	One More, One Less	Two More, Two Less	Two More, Two Less	Number 10 Fact Families	Number 10 Fact Families	
Spring 2	Stage 3 Book 4	Stage 3 Book 4	Stage 3 Book 5	Stage 3 Book 6	Stage 3 Book 6	Stage 3	
	Five and A Bit	Five and A Bit	Know About Zero	Doubles and Near Doubles	Doubles and Near Doubles	Gap teaching and consolidation	
Summer 1	Stage 3 Book 7	Stage 3 Book 7	Stage 3 Book 8	Stage 3 Book 9	Stage 3 Book 9	Stage 3 Book 9	
	Number Neighbours	Number Neighbours	7 Tree & 9 Square	Strategy Selection	Strategy Selection	Strategy Selection	
Summer 2	Stage 4 Book 1	Stage 4 Book 1	Stage 4 Book 1	Stages 3&4	Stages 3&4	Stages 3&4	Stages 3&4
	Ten and A Bit	Ten and A Bit	Ten and A Bit	Gap teaching and consolidation	Gap teaching and consolidation	Gap teaching and consolidation	Gap teaching and consolidation


Multiplication and Division Facts

EYFS – Understanding of equal groups

Year 1 - Count forwards and backwards in 2's to 20 , 5's to 50 and 10's to 100

Year 2 –  multiplication and division facts for the 2, 5 and 10 times tables

Year 3 –  multiplication and division facts for the 0, 1, 3, 4 and 8 times tables

Year 4 -  multiplication and division facts for the 6, 7, 8, 11 and 12 times tables

Year 5 & 6 – revision of all multiplication and division 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