

Subject Self Evaluation Form

Subject: Mathematics

School Context

- The socio-economic circumstances of the pupils are better than the average nationally although lower than the other schools in our local cluster.
- The proportion of pupils eligible for a free school meal is below average but many families are on low incomes. The majority of parents are supportive but a significant minority have low aspirations and this has an impact on their support for their children's academic progress and on the extent to which they become involved in their children's learning. As a result of this, some of the pupil premium supports these families financially through clubs and educational visits.
- We have identified that 25 per cent of our pupils have home lives that negatively affects their school life and their ability to thrive. Significant work is completed to support these children through learning mentors and a school play therapist.
- The largest ethnic groups are: White British (75.98%), any other white background (16%). Mixed White & Asian (1.44%), Mixed White & Black Caribbean (1.15%). Mixed White & Black African (0.92%), Mixed any other mixed background (2.07%). The percentage of children who are not white British have increased by 6.2% since last year. This school has 12 out of 17 possible ethnic groups. The average number of groups for this phase of education is identified than national we celebrate our cultural diversity.
- We are an inclusive school. In 2018, the school was in the top 20% of all schools for the proportion of SEN with EHC/statement (3.2%).
- Staff retention is very high. This means the shared vision and ethos is well-developed as staff have built this vision with staff team. Monitoring, evaluation and review has happened for nine years in a cycle where each subject has a deep dive on a rolling programme. So experienced subject leaders know their subject's strengths and areas for development well.
- School is part of a number of excellent partnerships including being a founder member of SAT so we benefit from excellent links to secondary education which has supported the development of our curriculum e.g. internship programme.

Baseline

Number 29% below, 71% GLD

Numerical Patterns 24% below, 76% GLD

Listening, Attention and Understanding 17% below, 83% GLD

Speaking 16% below, 84% GLD

School vision

School Values

Our curriculum cannot be separated from our school's core values: be kind, be confident, be curious, be positive, be respectful and be resilient. These permeate all aspects of school life and underpin our school curriculum. Although these are directly taught within our curriculum they are also 'lived' throughout our school and effectively create the culture that allows our curriculum to be successful.

Curriculum Aims

Alongside our school values we have a set of aims for our school curriculum. These are the key threads that underpin and link our children's curriculum experiences together. We want children to: question; challenge themselves and each other; investigate the world around them; experience the world first hand; communicate effectively; and seek to develop their understanding of themselves, each other and the world around them. These aims were developed by and for the school community; parents, teachers, staff and governors collaborated to create our INSPIRE curriculum aims.



Intent

A high-quality mathematics education provides a foundation for understanding the world and the ability to reason mathematically; it is essential to everyday life. These skills will engender a sense of enjoyment and curiosity about the world in which we live. "Maths is the truly global language. With it, we convey ideas to each other that words can't handle – and bypass our spoken Tower of Babel" (Professor Alison Wolf).

Aims

- To become **fluent in the fundamentals of mathematics**, through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- To **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- To be able to **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Implementation

We will become **fluent in the fundamentals of mathematics** by:

- Daily teaching of Mathematical concepts, with a minimum of 5 hours study a week.
- Using the calculation and fluency policies to teach an increasingly complex set of skills within a progression of skills.
- Have routines for learning times tables, with regular monitoring of progression.
- Use interleaved practice to regularly practise fluency arithmetic (KS2).
- Moving fluently between representations of mathematical ideas. (The programmes of study are, by necessity, organised into apparently distinct domains, but pupils make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects).
- Following the CPA approach (Concrete, Pictorial, Abstract).
- Following a 7 part teaching and learning sequence: Revisit, Stater/Explore, In Focus/Hook, Model/Teach, Guided Practice, Independent Practice, Deepening Understanding.
- Use Adaptive Teaching to meet the needs of all children, including masterclass lessons where appropriate.
- Intervention support carefully planned using the Mastering Number programme for children with identified gaps in knowledge.
- Using a range of models to support understanding and progression- see calculation policies.
- Real-life 'hooks' allowing children to apply their mathematics to real-life contexts and problem solving where appropriate.
- Identifying, understanding and applying a number of strategies to solve a problem as there is more than one way.
- Allow pupils to identify and select their own chosen methods and equipment which support their learning the best.
- Promote a growth mind-set approach towards their learning – developing a love for mathematics.
- Going deeper and broadening children's learning (instead of moving to next year's curriculum content, but digging deeper with a range of activities).
- Use reasoning statements to encourage children to explain their thoughts, processes and understanding.
- Encourage pupils to talk in mixed-ability partners and groups to discuss their mathematical thinking/reasoning.
- Plan conceptual and procedural variation, including non-concepts.
- Allow pupils opportunities to learn from each other and support one another.
- Answer in full sentences – with a focus on using mathematical vocabulary (STEM sentences).
- Using learning walls within every classroom to support pupils learning.

We will become able to **reason mathematically** by:

- Using mathematics across the wider curriculum. For example in computing, using algorithms, promoting logical thinking, abstraction of code etc.
- Using opportunities throughout the day to explore mathematical concepts through problem solving and mathematical games.
- Using enrichment books to supplement knowledge for the different strands of learning.
- Answering in full sentences.
- Using mathematical reasoning statements.
- Promoting discussion between pupils; working in mixed-ability pairs and groups.

- Promoting enjoyment of learning through practical activity, exploration and discussion through:
- Describing – talking through the process of achieving the answer
- Explaining – using ‘because’
- Convincing – I know this is true/correct/right because ...
- Justifying – explores/ delves into deeper maths
- Proving – visual and algebraic proof (4 initial categories of proof: Contradiction, exhaustion, logical reasoning, generic proof)

We will **solve problems** through:

- Using examples of problems, including multi-step problems from the NCA statutory tests
- CPA approach; Concrete, Pictorial, Abstract
- The problem solving strategies we will incorporate into our teaching are:
- Visualisation
- Work backwards
- Reason logically
- Conjecture (can be proved in a watertight way)
- Work systematically
- Look for patterns
- Trial and improvement

Impact

Early Years Outcomes

	2019	2022	2023	National Average 2023
% achieving a Good Level of Development (GLD)	78%	81%	75%	67%

GLD (Good Level of Development) 2023

Number in group	Autumn 1 (Baseline)	Summer 2 (EYFSP)
Cohort (61)	7 (12%)	46 (75%)
Girls (29)	6 (21%)	22 (76%)
Boys (32)	1 (3%)	24 (75%)
EAL (13)	0 (0%)	8 (62%)
PPG (4)	0 (0%)	3 (75%)
SEN (6)	0 (0%)	1(17%)

AOLD (Areas of Learning and Development) 2023

Achieved ELG (%)

Listening, Attention and Understanding	90%
Speaking	90%
Managing Self	95%
Building Relationships	95%
Self-regulation	93%
Gross Motor Skills	95%
Fine Motor Skills	92%
Number	90%
Numerical Patterns	85%

- Children's overall attainment is strong.
- Over the year, number saw significant increases in the % children on track for ELG.
- Children received intervention after each mathematics lesson to aid keep up not catch up.
- The reasons for not meeting the ELG in number range from poor understanding of counting and cardinality to insufficient recall of number bonds.

Summer 2	Listening, Attention and Understanding	Speaking	Managing Self	Building Relationships	Self-regulation	Gross Motor Skills	Fine Motor Skills	Word Reading	Comprehension	Writing	Numbers	Numerical Patterns	Past and Present	People, Culture and Communities	The Natural World	Creating with Materials	Being imaginative and expressive
Whole cohort																	
No of pupils	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61

%F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% below	10	10	5	5	7	5	8	7	8	18	10	15	11	13	5	5	7
% GLD	90	90	95	95	93	95	92	93	92	82	90	85	89	87	95	95	93

Pupil Premium																	
No of pupils	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

%F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% below	0	25	0	0	0	0	0	0	25	25	0	25	0	0	0	0	0
% GLD	100	75	100	100	100	100	100	100	75	75	100	75	100	100	100	100	100

Not Pupil Premium																	
No of pupils	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57

%F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% below	11	9	5	5	7	5	9	7	7	18	11	14	12	14	5	5	7

% below	16	4	8	4	12	8	8	4	4	12	4	4	8	8	4	4	8
% GLD	84	96	92	96	88	92	92	96	96	88	96	96	92	92	96	96	92

Spring Birth																	
No of pupils	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
%F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% below	0	25	0	13	0	0	0	13	25	25	13	25	0	13	0	0	0
% GLD	100	75	100	88	100	100	100	88	75	75	88	75	100	88	100	100	100

Summer Birth																	
No of pupils	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
%F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% below	7	11	4	4	4	4	11	7	7	21	14	21	18	18	7	7	7
% GLD	93	89	96	96	96	96	89	93	93	79	86	79	82	82	93	93	93

Boys performed slightly better than girls.

PPG children performed better than non- PPG children.

EAL children performed similarly to non EAL children

Autumn children achieved better than spring and summer children who achieved similarly.

End of Key Stage One (Year 2) Outcomes

Attainment Results	2019	2022	2023	Provisional National Average 2023
% at or above the expected standard in reading, writing and maths combined	85%	73%	72%	55%
% at or above the expected standard in reading	90%	88%	83%	68%
% at or above the expected standard in writing	86%	78%	73%	59%
% at or above the expected standard in maths	88%	81%	85%	70%
% achieving a higher level of attainment in reading, writing and maths combined	19%	22%	33%	
% achieving a higher level of attainment in reading	37%	37%	40%	18%
% achieving a higher level of attainment in writing	25%	24%	20%	8%
% achieving a higher level of attainment in maths	29%	31%	32%	16%
Science Teacher Assessment	91%	92%	88%	

Strengths in Year 2

- A strong team is in place, with good TA support to work with this cohort, interweaving masterclasses where appropriate.
- Small group intervention (based on Mastering Number to aid fluency) continued throughout the year. Also, a qualified teacher taught a smaller group of children to aid confidence and engagement.
- High quality teaching and learning took place in Year 2 with highly skilled and experienced teachers across the year group.

Barriers to achievement

- Attendance has had an impact since COVID. An attendance officer is working with families to provide ongoing support.
- Fluency and recall of number facts has had an impact. Therefore, our 10MM maths each day based on fluency progression has been key and will be moving forwards.

Year 2 Data Sheet

Whole Cohort																																																																																
EYFS result									Maths									Reading									Writing																																																					
Autumn 1									Autumn 2									Spring 1									Spring 2									Summer 1									Summer 2									Y2 Target																										
58									Total									60									60									60									60									60									60									60								
0									%F									3									3									3									5									5									5									0								
12									% WT									13									18									17									15									12									12									12								
88									% EXP +									87									83									83									83									85									85									87								
45									% Higher S									28									32									30									30									32									32									43								

Disadvantaged																																																																																
EYFS result									Maths									Reading									Writing																																																					
Autumn 1									Autumn 2									Spring 1									Spring 2									Summer 1									Summer 2									Y2 Target																										
0									Total									0									0									0									0									0									0																	
0									%F									25									25									25									38									38									38									0								
63									% WT									50									50									50									38									25									25									63								
38									% EXP +									50									50									38									38									38									38									63								
25									% Higher S									13									13									13									13									13									13									25								

Not Disadvantaged																																																																																
EYFS result									Maths									Reading									Writing																																																					
Autumn 1									Autumn 2									Spring 1									Spring 2									Summer 1									Summer 2									Y2 Target																										
50									Total									52									52									52									52									52									52																	
0									%F									0									0									0									0									0									0									0								
8									% WT									8									12									10									10									8									8									10								
92									% EXP +									92									88									90									90									92									92									90								
48									% Higher S									31									35									33									33									35									35									46								

Free School Meals																										
EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Writing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
8	Total	8	8	8	8	8	8	8	8	Total	8	8	8	8	8	8	8	8	Total	8	8	8	8	8	8	8
0	%F	0	0	0	0	0	0	0	0	%F	25	25	25	38	38	38	0	0	%F	25	25	25	38	38	38	0
38	% WT	50	50	63	63	63	63	38	63	% WT	50	50	50	38	25	25	63	75	% WT	38	38	50	38	38	38	75
63	% EXP +	50	50	38	38	38	38	63	63	% EXP +	25	25	25	25	38	38	38	25	% EXP +	38	38	25	25	25	25	25
25	% Higher S	13	13	13	13	13	13	25	13	% Higher S	13	13	13	13	13	13	13	13	% GD	13	13	13	13	13	13	13

Ever6																											
Maths									Reading									Writing									
EYFS result		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	
8	Total	8	8	8	8	8	8	8	8	Total	8	8	8	8	8	8	8	8	Total	8	8	8	8	8	8	8	
0	%F	0	0	0	0	0	0	0	0	%F	25	25	25	38	38	38	0	0	%F	25	25	25	38	38	38	0	
38	% WT	50	50	63	63	63	63	38	38	% WT	50	50	50	38	25	25	63	75	% WT	38	38	50	38	38	38	75	
63	% EXP +	50	50	38	38	38	38	63	63	% EXP +	25	25	25	25	38	38	38	25	% EXP +	38	38	25	25	25	25	25	
25	% Higher S	13	13	13	13	13	13	25	13	% Higher S	13	13	13	13	13	13	13	13	% GD	13	13	13	13	13	13	13	

Looked After / Post Looked After children																										
EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Writing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
0	Total	0	0	0	0	0	0	0	0	Total	0	0	0	0	0	0	0	0	Total	0	0	0	0	0	0	0
	%F									%F									%F							
	% WT									% WT									% WT							
	% EXP +									% EXP +									% EXP +							
	% Higher S									% Higher S									% GD							

Boys																													
Maths									Reading									Writing											
EYFS result			Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result			Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result			Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
32	Total		32	32	32	32	32	32	32	32	Total		32	32	32	32	32	32	32	32	Total		32	32	32	32	32	32	32
0	%F		0	0	0	0	0	0	0	0	%F		6	6	6	6	6	6	6	0	0	%F		6	6	6	6	6	0
16	% WT		16	16	19	19	16	16	16	16	% WT		13	16	13	13	13	13	19	31	% WT		19	19	22	22	22	22	31
84	% EXP +		84	84	81	81	84	84	84	84	% EXP +		81	78	81	81	81	81	81	69	% EXP +		75	75	72	72	72	72	69
50	% Higher S		31	34	34	34	34	34	50	50	% Higher S		41	38	41	47	44	44	50	38	% GD		19	19	19	22	19	19	38

									Girls																	
EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Writing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
26	Total	28	28	28	28	28	28	28	26	Total	28	28	28	28	28	28	28	26	Total	28	28	28	28	28	28	28
0	%F	0	0	0	0	0	0	0	0	%F	0	0	0	4	4	4	0	0	%F	0	0	0	4	4	4	0
8	% WT	11	18	14	14	14	14	11	4	% WT	14	21	21	18	11	11	4	23	% WT	14	14	14	11	14	14	21
92	% EXP +	89	82	86	86	86	86	89	96	% EXP +	86	79	79	79	86	86	96	77	% EXP +	86	86	86	86	82	82	79
38	% Higher S	25	29	25	25	29	29	36	42	% Higher S	21	29	29	36	36	36	39	42	% GD	14	18	18	18	21	21	39

English as an additional language																											
Maths									Reading									Writing									
EYFS result		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	
10	Total	11	11	11	11	11	11	11	10	Total	11	11	11	11	11	11	11	10	10	Total	11	11	11	11	11	11	11
0	%F	0	0	0	0	0	0	0	0	%F	0	0	0	0	0	0	0	0	0	%F	0	0	0	0	0	0	0
0	% WT	0	9	9	9	9	9	0	10	% WT	18	18	18	18	18	18	9	40	% WT	18	18	27	27	27	27	36	
100	% EXP +	100	91	91	91	91	91	100	90	% EXP +	82	82	82	82	82	82	91	60	% EXP +	82	82	73	73	73	73	64	
40	% Higher S	9	18	18	18	36	36	36	30	% Higher S	27	36	45	45	45	45	27	30	% GD	27	36	36	36	27	27	27	

									English as a first language																	
EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target	EYFS result	Writing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
48	Total	49	49	49	49	49	49	49	48	Total	49	49	49	49	49	49	49	48	Total	49	49	49	49	49	49	49
0	%F	0	0	0	0	0	0	0	0	%F	4	4	4	6	6	6	0	0	%F	4	4	4	6	6	6	0
15	% WT	16	18	18	18	16	16	16	13	% WT	12	18	16	14	10	10	12	25	% WT	16	16	16	14	16	16	24
85	% EXP +	84	82	82	82	84	84	84	88	% EXP +	84	78	80	80	84	84	88	75	% EXP +	80	80	80	80	78	78	76
46	% Higher S	33	35	33	33	31	31	45	50	% Higher S	33	33	33	41	39	39	49	42	% GD	14	14	14	16	18	18	41

Special Educational Needs

EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
0	Foundations	0	0	0	0	0	0	0
1	WT	1	1	2	2	2	2	2
1	EXP	3	3	2	2	2	2	1
1	Higher S	0	0	0	0	0	0	1
3	Total	4	4	4	4	4	4	4
0	%F	0	0	0	0	0	0	0
33	% WT	25	25	50	50	50	50	50
67	% EXP +	75	75	50	50	50	50	50
33	% Higher S	0	0	0	0	0	0	25

EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
0	Foundations	1	1	1	1	1	1	0
3	WT	2	2	2	2	2	2	3
0	EXP	1	1	1	0	0	0	1
0	Higher S	0	0	0	1	1	1	0
3	Total	4	4	4	4	4	4	4
0	%F	25	25	25	25	25	25	0
100	% WT	50	50	50	50	50	50	75
0	% EXP +	25	25	25	25	25	25	25
0	% Higher S	0	0	0	25	25	25	0

EYFS result	Writing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
0	Foundations	1	1	1	1	1	1	0
3	WT	1	1	2	2	2	2	3
0	EXP	2	2	1	1	1	1	1
0	GD	0	0	0	0	0	0	0
3	Total	4	4	4	4	4	4	4
0	%F	25	25	25	25	25	25	0
100	% WT	25	25	50	50	50	50	75
0	% EXP +	50	50	25	25	25	25	25
0	% GD	0	0	0	0	0	0	0

Not Special Educational Needs

EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
55	Total	56	56	56	56	56	56	56
0	%F	0	0	0	0	0	0	0
11	% WT	13	16	14	14	13	13	11
89	% EXP +	88	84	86	86	88	88	89
45	% Higher S	30	34	32	32	34	34	45

EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
55	Total	56	56	56	56	56	56	56
0	%F	2	2	2	4	4	4	0
7	% WT	11	16	14	13	9	9	7
93	% EXP +	88	82	84	84	88	88	93
49	% Higher S	34	36	38	43	41	41	48

EYFS result	Writing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
55	Total	56	56	56	56	56	56	56
0	%F	2	2	2	4	4	4	0
24	% WT	16	16	16	14	16	16	23
76	% EXP +	82	82	82	82	80	80	77
42	% GD	18	20	20	21	21	21	41

Autumn Birth Term

EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
14	Total	15	15	15	15	15	15	15
0	%F	0	0	0	0	0	0	0
7	% WT	7	7	13	13	13	13	7
93	% EXP +	93	93	87	87	87	87	93
57	% Higher S	33	40	40	40	47	47	53

EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
14	Total	15	15	15	15	15	15	15
0	%F	0	0	0	0	0	0	0
21	% WT	20	20	20	20	20	20	20
79	% EXP +	80	80	80	80	80	80	80
50	% Higher S	40	47	47	53	53	53	47

EYFS result	Writing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
14	Total	15	15	15	15	15	15	15
0	%F	0	0	0	0	0	0	0
36	% WT	20	20	27	27	27	27	33
64	% EXP +	80	80	73	73	73	73	67
43	% GD	20	27	27	27	33	33	40

Spring Birth Term

EYFS result	Maths	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
16	Total	17	17	17	17	17	17	17
0	%F	0	0	0	0	0	0	0
25	% WT	29	35	29	29	29	29	29
75	% EXP +	71	65	71	71	71	71	71
31	% Higher S	24	24	24	24	29	29	29

EYFS result	Reading	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
16	Total	17	17	17	17	17	17	17
0	%F	6	6	6	12	12	12	0
19	% WT	24	35	29	24	12	12	18
81	% EXP +	71	59	65	65	76	76	82
25	% Higher S	12	18	24	35	29	29	24

EYFS result	Writing	Spring 1	Spring 2	Spring 1	Spring 2	Summer 1	Summer 2	Y2 Target
16	Total	17	17	17	17	17	17	17
0	%F	6	6	6	12	12	12	0
31	% WT	29	29	29	24	18	18	29
69	% EXP +	65	65	65	65	71	71	71
13	% GD	0	0	0	6	6	6	12

Summer Birth Term

EYFS result	Maths	Autumn 1	Autumn 2	Summer 1	Summer 2	Summer 1	Summer 2	Y2 Target
28	Total	28	28	28	28	28	28	28
0	%F	0	0	0	0	0	0	0
7	% WT	7	11	11	11	7	7	7
93	% EXP +	93	89	89	89	93	93	93
46	% Higher S	29	32	29	29	25	25	46

EYFS result	Reading	Autumn 1	Autumn 2	Summer 1	Summer 2	Summer 1	Summer 2	Y2 Target
28	Total	28	28	28	28	28	28	28
0	%F	4	4	4	4	4	4	0
4	% WT	4	7	7	7	7	7	4
96	% EXP +	93	89	89	89	89	89	96
57	% Higher S	39	36	36	39	39	39	57

EYFS result	Writing	Summer 1	Summer 2	Summer 1	Summer 2	Summer 1	Summer 2	Y2 Target
28	Total	28	28	28	28	28	28	28
0	%F	4	4	4	4	4	4	0
21	% WT	7	7	7	7	14	14	21
79	% EXP +	89	89	89	89	82	82	79
54	% GD	25	25	25	25	21	21	54

Girls and boys performed similarly at the expected level but more boys achieved the higher standard.

PPG children performed poorly compared to non PPG children. This data is complex as 6/8 PPG are also SEND children with two having a ECHP.

EAL children performed better than non EAL children at the expected level although non EAL children performed better at the higher standard.

Autumn and summer children performed better than spring children.

Year 4 Multiplication Check

Attainment Results	2021	2022	2023	National Average 2023
Average score out of 25	22.0	22.3	22.4	20.4
% achieving 25/25 raw score	30%	40%	33%	31%

Attainment is high in the MTC and is a specific focus for teachers through Year 3 and Year 4.

Attainment for disadvantaged children is particularly pleasing for most of the children in this group, with one exception where illness has lowered attendance. In 2023 there was no significant gap between these children and their peers.

Children who have not become fluent at their times tables in each year group have been identified and worked with in subsequent years.

It is a National Curriculum expectation that pupils can recall their times tables, with fluency, by the end of Year 4.

The children who have achieved Gold in our times tables system, can get full marks in the MTC. Those below Gold, even those on Silver award, do significantly less well.

As the curriculum sophisticates in Year 5 and 6, children who do not have a secure and fluent recall of their times tables do find Maths less enjoyable and can't achieve as much in lessons. This is because the curriculum applies their multiplication knowledge in different contexts.

There is no pass/fail mark for this tables check and no retest for those who do not score highly. We use the information to inform interventions into Year 5.

- The children have had targeted times tables lessons throughout Year 4
- The children use software called TTRockstars to practise times tables online.
- The teachers run a monthly test in Year 4, to inform them of the children's progress in learning times tables and to organise intervention based on specific needs.
- The results from 2023 were similar to 2022's results, which were higher than the 2021 results (Average overall score of 21.7 in 2021).
- We held an MTC parent workshops for 22-23, which was attended by 60% of the parents in October 2022. We have timetabled in a workshop again this academic year. If parents missed the workshop, we sent the information home for parents.

End of Key Stage Two (Year 6) Outcomes

Attainment Results	2019	2022	2023	National Average 2023
% at or above the expected standard in reading, writing and maths combined	87%	72%	83%	59%
% at or above the expected standard in maths	95%	84%	88%	73%
Based upon the higher standard/Greater depth being 110 scaled scores				
% achieving a higher level of attainment in reading, writing and maths combined	34%	19%	23%	8%
% achieving a higher level of attainment in maths	53%	40%	38%	24%

Progress Results	2019	2022	2023
Average progress in reading	+0.3	+0.4	+2.7
Average progress in writing	+1.2	+0.6	+2.1
Average progress in maths	+1.3	+1.0	+1.2

Average Scaled Scores	2019	2022	2023	National Average 2023
Reading	108	107	109	105
Maths	109	107	108	104
Grammar, Punctuation and Spelling	110	108	111	105

<u>Maths Data</u>	Maths Sept	Maths Jan	Maths March	Maths May	Target
Overall APS	95.5	98.3	103.8	107.34	108.8
% 100+	41%	56%	81%	88%	84.8
% 110+	4%	9%	25%	36%	36.7

2022 results	97.1	98.9	101.0	106.5	106.3
2022 Pupil 100+	45%	52%	73%	84%	81%
2022 Pupil 110+	6%	13%	24%	40%	37%

Number of Disadvantaged	5	Not Dis.	75	Target
% Dis. 100+	20%	20%	60%	80%
% Not Dis. 100+	44%	60%	85%	90%

% Dis. 110+	0%	0%	20%	20%
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% Not Dis. 110+	4%	10%	26%	38%	37%
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Number of girls	38	No. of boys		42	Target
% Girls 100+	32%	50%	79%	84%	82%
% Boys 100+	53%	65%	88%	95%	86%

% Girls 110+	0%	0%	16%	24%	21%
% Boys 110+	8%	18%	35%	50%	50%

Number of EAL	17	Not EAL		63	Target
% EAL 100+	40%	73%	93%	100%	76%
% Not EAL 100+	43%	54%	81%	86%	86%

% EAL 110+	0%	20%	27%	53%	24%
% Not EAL 110+	5%	6%	25%	33%	40%

6HA	Total	27			Target
% 100+	37%	59%	81%	85%	85
% 110+	4%	7%	22%	33%	33

6EW	Total	27			Target
% 100+	33%	41%	89%	93%	89
% 110+	4%	7%	19%	30%	22

6WM	Total	26			Target
% 100+	54%	69%	73%	85%	80
% 110+	4%	12%	35%	46%	56

Girls performed less well than boys at expected and especially at the higher standard. We are investigating if this is a trend and conducting pupil interviews as well as single sex teaching for some mathematics lessons.

EAL children performed better than non EAL children at expected level and higher level.

Non disadvantaged children performed slightly better than disadvantaged children at expected and higher level.

End of Key Stage Two (Year 6) Outcomes

Attainment Results	2019	2022	2023	National Average 2022
% at or above the expected standard in reading, writing and maths combined	87%	72%	83%	59%
% at or above the expected standard in reading	89%	87%	90%	74%
% at or above the expected standard in writing	94%	81%	88%	69%
% at or above the expected standard in maths	95%	84%	88%	71%
Based upon the higher standard/Greater depth being 110 scaled scores				
% achieving a higher level of attainment in reading, writing and maths combined	34%	19%	23%	7%
% achieving a higher level of attainment in reading	48%	39%	58%	28%
% achieving a higher level of attainment in writing	45%	25%	32%	13%
% achieving a higher level of attainment in maths	53%	40%	38%	22%

Progress Results	2019	2022	2023
Average progress in reading	+0.3	+0.4	To follow
Average progress in writing	+1.2	+0.6	To follow
Average progress in maths	+1.3	+1.0	To follow

Average Scaled Scores	2019	2022	2023	National Average 2022
Reading	108	107	109	105
Maths	109	107	108	104
Grammar, Punctuation and Spelling	110	108	111	106

The results remained high in across all areas, especially at Greater Depth.

Our CAT results (Cognitive ability test) indicated that the cohort was well above average in their cognitive ability. Although the 16 children were not tested as testing occurred in Year 4.

CATs Scores Mean SAS					
70 - 79	Very Low	1	Lower	Percentage	Average CAT score
80-89	Below Average	1	2	3.13%	112.50
90-95	Lower average	4	Average		
96-104	Average	14	25	39.06%	
105-110	Higher average	7	Higher		
111-126	Above average	26	37	57.81%	
127+	Very High	11			
	Total tested	64			

Areas of strength

- Additional Interventions via Zoom were given to children who were unable to access mainstream Zoom lessons during the Spring term 2021 of Year 4, with mostly good engagement.
- The year group had been split into 3 classes, allowing more individual attention in smaller classes.
- Covid Catchup tutoring has included 21 Y6 pupils, with all targeted families engaging with the programme due to personalised invitations and tailored support packages.
- Small group intervention in maths and reading started in Autumn term and continued into Spring term and Summer term 2023.
- High quality teaching and learning took place in Year 6 with highly skilled and experienced teachers in classes.

Barriers to attainment

- Year Six have 81 children so the bulge has generated 21 more children. A feature of the children who have joined the school is they have more complex needs either with the children being new to English, more complex safeguarding concerns or SEND needs. Historically, we have had Year 6 in classes of 20 to get them secondary ready.
- 17 children in the year group are EAL with 7 children new to English.
- Attendance is critically low for one of the pupils. Attendance officer working with the family and TAF in place, but attendance at 75%, despite being fined.

Significant developments in the subject
• Clearly sequenced vocabulary policy. • Mathematics enrichment books to supplement teaching and learning through book-talk and oracy. • Evidenced based lesson sequence- 7 part Mastery Teaching and Learning Sequence. • Subject leaders delivered training which developed teachers understanding of early mathematics. • Fluency everyday (10 minute maths sessions and within the daily lessons). • Regular parental workshops.

Strengths
• A love and enthusiasm for mathematics promoted throughout the school and demonstrated by the children through pupil survey. • High expectations. • Well-presented books that show clear sequence of learning and progression through the year groups.

- Longer and deeper learning on units of work to ensure secure understanding and consolidate learning.
- Results.
- Books and planning demonstrate a clear sequence of deep learning and progression.
- Opportunities for fluency daily '10 minute maths (10MM)' sessions are established. Opportunities for problem solving and reasoning are embedded. Deepening understanding activities are consistently used to challenge pupils.
- Real-life context hooks are planned in (where relevant in every lesson).
- Targeted 'Masterclasses' are carried out to support all learners to achieve their potential. Children are identified through assessment and class teacher observations.
- The marking policy has been updated to include MC to support our ethos of 'keep up' not 'catch up' where appropriate.
- 1:1 planning sessions with leaders supported with the development of year group folders to support teachers in planning – including a bank of resources (e.g. calculation policy, key vocabulary, possible STEM sentences, examples of support and challenge, NCETM small steps, ready to progress guidance.).
- A document entitled 'Mathematics at Katherine Semar Schools' has been created for mathematics which is a one-stop document detailing the ethos and teaching expectations at KSS, including a clear procedure for presenting work in books. It highlights the importance of a consistent approach to teaching mathematics at KSS and contains key information from all the policies used to deliver mathematics at KSS. It is used to support the induction of new staff and all existing staff.
- Mathematics workshops are carried out in KS2 to encourage and develop parental engagement and support in children's maths at home. In EYFS and KS1 caregivers are invited in to watch a mathematics lesson before enjoying spending time in the classroom environment with their child.
- Our times tables system was reviewed and improved to establish a clear path of progression for the children and to further motivate them to learn their tables. Year 4 carry out regular times tables intervention for targeted children and have built in daily times tables fluency practice for all children.
- Our calculation policy was updated and delivered to staff in Autumn 2020. It was also updated in 2021/2022 in line with the new EYFS framework. There is progression for addition, subtraction, multiplication and division, setting out year group objectives, mental strategies, formal written calculations and strategies, vocabulary and concrete, pictorial and abstract methods.
- We have engaged in the NCETM Mastering Number programme for teachers in EYFS and KS1, designed to help children embed good number sense.
- We have engaged in the NCETM Specialist Knowledge for Teaching Mathematics – Primary Early Career Teachers designed to support primary early career teachers in developing specialist knowledge for teaching mathematics, thus enabling them to understand, teach and support pupils in maths in the classroom.
- Mathematics monitoring spotlight in Autumn 2022 to look at consistency and teaching and learning across the school. Evidence of report written after the spotlight:
 - Presentation was a strength across the board, and teachers and pupils have equally high expectations of self and others.
 - Progress of learning was explicit and clear, and showed fidelity to the MTP – small steps are observed in teaching practice and had been considered by phase and class teachers to respond to the starting points of their classes.
 - Subject specific vocabulary was taught and applied in learning – as well as oral rehearsal, children also used the vocabulary in their written responses.

- A range of questions and resources from identified sources were evident in all books.

Observations provided leaders with an insight into the implementation of the maths curriculum – with observations Year 1 and Year 5 classrooms:

- Learning behaviours and engagement in all classrooms, and indeed across the school, were exemplary.
- Learning environments were beautifully designed and purposefully prepared to allow learners and learning to thrive.
- Fundamental principles which leaders have embedded – Rosenshine’s Principles of Instruction – were evident in all classrooms, with teachers providing modelled exemplars and guided practice opportunities to reduce cognitive load and improve knowledge acquisition.
- Resources had been carefully selected to underpin mathematical structures (eg: Quiz Quiz Trade in Y1 included subitised array values alongside stem sentences) and provide critical exposure to procedural variation.
- Oracy was central to the learning – children spoke in full sentences, often referring to the stem sentence – and opportunities were provided for oral rehearsal through echo and choral responses.
- There was ‘deep learning’ in all lessons, which served to demonstrate that prior learning was embedded.

To maintain outstanding

- Continue to maintain the vocabulary policy.
- Continued reflection of the fluency policy with a focus on KS1.
- Evaluate use of interventions/masterclasses across the schools for maximum impact.
- Monitor consistency of teaching and support new members of staff to be able to do so.

Monitoring and evaluation systems

At Katherine Semar we believe that the most effective way to monitor the impact of our Mathematics policy is to utilise and triangulate a broad range of moderating activities, involve our stakeholders, and apply these regularly, consistently and robustly. Through our annual Monitoring, Evaluation and Review cycle, we employ the following monitoring activities in Mathematics:

- **Lesson Observations and Learning Walks**
 - Senior Leaders and Subject Co-ordinators regularly undertake planned and unplanned lesson observations and learning walks. These have a clear focus and feedback, and findings are used to inform individual and whole-school Continuing Professional Development (CPD), School Development Planning and future monitoring activities.
- **Internal and External Assessments**
 - In line with the school’s assessment policy, each year group undertakes a range of internal and external assessments as appropriate to their age and stage of development. Data from these assessments is used to inform planning, teaching, interventions, and adult support to ensure all children are making maximum progress.
- **Work Scrutinies**
 - Work scrutinies are carried out by subject coordinators, Senior Leadership Team and whole staff.

- **Pupil Progress Meetings**

- Half-termly pupil progress meetings are held between class teachers and senior leaders. These review the progress of each child as an individual and ensure quality first teaching and relevant interventions ensure every child makes maximum progress.

- **Pupil Conferences**

- Every child from Year Two to Six has a learning mentor from the senior leadership team. They have individual pupil conferences each term which supports children to take ownership of their own learning, review their progress and set themselves development targets.

- **Governor Visits**

- As part of the Governors' Monitoring, Evaluation and Review cycle, lead governors in each subject, make regular visits to school to monitor progress towards the school development plan.
- Monitoring activities include a range of teaching and learning observations, discussions with subject co-ordinators, meetings with pupils, visits to subject specific celebration assemblies, work scrutinies and subject leader reports.

- **Pupil interviews**

- Senior staff, subject co-ordinators and governors take regular opportunities to listen to the views of pupils in relation to their experience of Mathematics at our school and their feedback actively informs subject development through our curriculum action plan.

- **Planning Scrutiny**

- Planning scrutinies are carried out by subject coordinators and Senior Leadership Team.

- **Staff Meetings**

- Teachers to feedback at staff meetings to support the development of the mastery curriculum at Katherine Semar (what is working successfully, where can we progress and develop further?).

- **Mathematics Monitoring Days**

- Termly mathematics monitoring days led by subject leaders with a changing focus such as; planning scrutiny, book looks, learning wall evaluations, learning walks of mathematics teaching and learning, analysing mathematics data.

SMSC

Spiritual

- Having fun with numbers and data.
- Appreciating the beauty and perfection of mathematics.
- Recognising 'eureka' moments.
- Wondering at the beauty of order and patterns; symmetry in the natural world e.g. flowers, crystals.
- Noticing naturally occurring mathematical forms e.g. hexagons in snowflakes and in honeycombs.
- Engage in increasingly challenging problem solving activities, persevere to overcome difficulties and experience the pleasure and satisfaction in reaching a solution.

Moral

- Developing a respect for truth.

- Understanding that statistics, in many shapes and forms, can be misused to prove a particular viewpoint.
- To investigate moral issues surrounding money and wealth.
- Encouraging sense of personal responsibility for their own learning in class and through homework.

Social

- Acquiring skills to help them take financial responsibility.
- Collecting data in groups.
- Planning small budgets.
- Learning how to solve problems which can improve peoples' living conditions.
- Looking at practical applications of mathematics e.g. conducting and analysing surveys.
- Maths games for social interaction, taking turns and sharing.
- Recognising maths skills as a tool for society.

Cultural

- Learning that numbers are a symbol system and different cultures have different systems (e.g. Arabic, Roman).
- Discovering mathematical patterns in art from a wide variety of cultural contexts e.g. Islamic patterns, mosaic, Greek and Rangoli patterns.
- Investigating mathematical problems using a variety of cultural contexts.
- Counting in a different language.

Training

See subject leader folder for CPD pre- 2020.

NCETM Mastering Number (2021)

09/09/21: Mathematics vocabulary training.

16.01/22: Deep Dive Training

01/02/22: Metacognition and oracy.

29.04.21: Ian Gunn subject monitoring.

26.05.21: Understanding our brains and how it effects learning.

10.06.21/01.07.21: Book scrutiny.

Oct 2022: Voice 21 Oracy in mathematics.

03.11.22: Mathematics spotlight

19.01.23: Early mathematics training for all staff. Interactive model lesson delivered and training on use of subitising across the school.

March 2023: Using Picture Books to Promote high quality learning in maths (Herb Gisburg)

11/07/23: Festival of Education (Amanda Spielman)

2022/23: Mathematics spotlights across the trust.

Termly – Maths Subject Leader Updates (Consortium).

2023/2024: Mathematics Mastery Specialist training.