Maths

St Stephen Churchtown Academy

2022 - 2023

Maths Lead: Mrs A Philp

Curriculum Overview 2023-2024

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	Combine objects- stacking blocks, putting objects inside others.	Take part in finger rhymes with numbers. React to changes of amount in a group of up to 3 items.	Compare amounts saying 'lots', 'more' or 'same' Develop counting-like behaviour- making sounds, pointing or saying numbers in sequence.	Count in everyday contexts.	Can climb and squeeze in to different spaces. Can build with a range of resources. Can complete inset puzzles.	Compare sizes, weights, etc using gesture and language- bigger, little, smaller, high, low, tall, heavy, light. Can notice patterns and arrange things in patters.
	Number Rhyme Focus: 2 little dicky birds (up to 2) Counting principle: Knowing numbers up to 3 in order Cardinal principle: the number name assigned in a group is the total number of objects. Extend ABAB pattern	Number Rhyme Focus: The goats came marching (up to 3) Counting principle: Subitising numbers to 3 Talk about and explore 2D shapes Master the Curriculum: Matching and Sorting	Number Rhyme Focus: 5 big hippos balancing Rhyme 2:5 little ducks (back from 5) Counting principle: Say one item for counting in order up to 5 Cardinal principle: The abstraction principle: Children understanding that anything can be counted including things that cannot be touched (sounds and movement) Make comparisons between objects relating to size and length Create ABAB patterns Master the Curriculum: It's Me 1, 2, 3	Number Rhyme Focus: 5 speckled frogs Rhyme 2: 5 current buns Rhyme Counting principle: Cardinal principle: Discuss and explore 3D shapes Discuss routes and locations using words like 'in =front of' and 'behind' Master the Curriculum: Alive in 5	Number Rhyme Focus: One potato (counting up to 7) Rhyme 2: 5 little monkeys (counting back from 5) Counting principle: Knowing numbers up to 10 in order The order irrelevance principle: children understanding that the order we count a group of objects is irrelevant. Link numerals and amounts. For example, showing the right number of objects to math the numeral up to 5. Master the Curriculum: Building 6,7,8	Number Rhyme Focus: 1,2,3,4,5 once I caught a fish alive (counting to 10) Rhyme 2: 1 little, 2 little... (counting to 10) Counting principle: Knowing numbers up to 10 in order Solve real world mathematical problems with numbers to to 5. Comparing quantities with language more than and fewer. Making comparison between weight and capacity. (heavier/lighter/full/empty) Master the Curriculum: Building 9 and 10
Reception	Baseline. Number (N): Match and sort, compare amounts. Measure, shape and spatial thinking (MSST): compare size, mass and	N: Numbers 1,2,3 Representing, comparing and composition Representing numbers to 5. One more or less	Introducing zero. Number bonds to 5. Counting to 10. Comparing groups to 10.	Comparing two groups to find the whole. Number bonds to 10- ten frame and part, part, whole model. Spatial awareness. 3D and 2D shapes.	Making patterns, simple and complex. Adding more and taking away. Counting to 20.	Doubling, halving and sharing. Odds and evens. Length, height and distance. Weight and capacity.

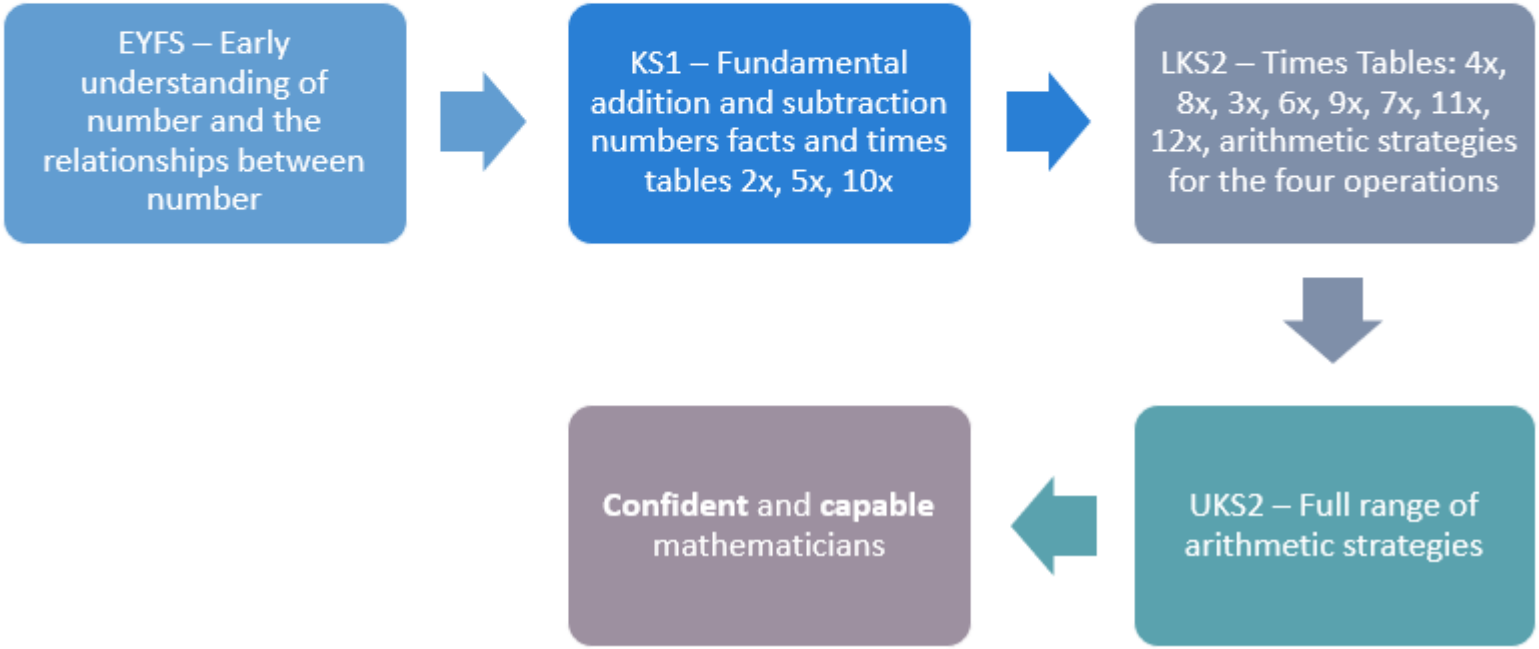
	capacity. Exploring pattern	MSST: Circles and triangles. Positional language. Shapes with 4 sides. Time.				
Year 1	Place Value – within 10 (5 weeks) MNS Stage 2 book 1 and 2	Addition and Subtraction- within 10 (5 weeks) Stage 2 Book 2,3,4,5 Geometry- Shape (2 week) MNS Stage 2 Book 6 and 7	Place Value- within 20 (2 weeks) Addition and Subtraction- within 20 (3 weeks) MNS Stage 3 Books 1-3.	Place Value- within 50 (1 weeks) Length and Height (2 weeks) Mass and Volume (2 weeks) MNS- Stage 3 books 4- 7	Multiplication and division (3 weeks) Fractions (2 weeks) Geometry Position and direction (1 week) MNS Stage 3 books 7-9	Place Value (within 100) (2 weeks) Measure- Money (2 week) Time (2 weeks) Consolidation week MNS Stage 4 Book 1
Year 2	Place value (4 weeks) Addition (2 weeks) MNS Stage 5, books 1-5) Number facts booklets 1 and 2	Shape (1 week) Subtraction (2 weeks) Time (1 week) Multiplication 3 weeks) MNS Stage 5, book 6/7 Number facts booklets 3 and 4	Money (2 weeks) Division (2 weeks) Fractions (1 week) MNS Stage 6, books 1-6. Number facts booklets 5 and 6	Length and height (2 weeks) Place value (1 week) Addition (2 weeks) Time (1 week) Times tables 10 x table	Subtraction (2 weeks) Fractions (1 week) Money (1 week) Mass, capacity and temperature (2 weeks) Times tables 5x, 2x	Statistic (2 weeks) Position and direction (2 weeks) Consolidation/ Problem Solving (3 weeks) Times tables 2s, mixed
Year 3	Place Value (4 weeks) Addition and Subtraction (2 weeks)	Addition and Subtraction cont (2 week) SHape (1 week)	Multiplication and division cont (2 weeks)	Fractions (3 weeks)	Fractions (2 weeks) Money (2 weeks) Time (2 weeks)	Shape (2 weeks) Statistics (2 weeks) Time- (1 week)

	Number facts booklets 5 and 6, Times tables 2, 5, 10 x	Multiplication and division (4 weeks) Times tables 4x	Length and perimeter (3weeks) Times tables 8x	Mass and capacity (3 weeks) Times tables 3x	Consolidation week Times tables 6x	Times tables mixed x
Year 3/4	Place Value (4 weeks) Addition and Subtraction (3 weeks) Times tables 2, 5, 10, 4 x	Area (1 week) Multiplication and division A (3 weeks) Times tables 8x, 3x, 6x	Multiplication and division B (3 weeks) Length and Perimeter (2 weeks) Times tables 3x, 6x, 9x, 7x	Fractions (4 weeks) Decimals (3 weeks) Times tables 7x, 11x	Decimals (2 weeks) Money (2 weeks) Time (2 weeks) Times tables 12x, mixed x	Shape (2 weeks) Statistics (1 week) Position and direction (2 weeks) Times tables mixed x
Year 4/5	Place value Addition and subtraction Place value Addition and subtraction Area Times tables 2, 5, 10, 4 x	Multiplication and division A Multiplication and division Fractions Times tables 8x, 3x, 6x	Multiplication and division B Length and Perimeter Multiplication and division Fractions Times tables 3x, 6x, 9x, 7x	Fractions Decimals Decimals and percentages Perimeter and area Statistics Times tables 7x, 11x	Decimals Money Time Shape Position and directions Decimals Times tables 12x, mixed x	Shape Statistics Position and direction Decimals Negative numbers Converting units Volume Times tables mixed x
Year 5	Place Value (3 weeks) Addition and Subtraction (3 weeks)	Multiplication and division (3 weeks) Fractions (4 weeks)	Multiplication and division (3 weeks) Fractions (2 weeks)	Decimals and percentages (3 weeks) Perimeter and area (2 weeks) Statistics (1 weeks)	Shape (3weeks) Position and direction (2 weeks) Decimals (2 weeks)	Decimals (1 week) Negative numbers (1 week) Converting units (2 weeks) Volume (1 week)

Year 6	Place Value (2 weeks) Addition, Subtraction, Multiplication and Division (5 weeks)	Fractions (4 weeks) Fractions, decimals and percentages (2 weeks)	Decimals (2 weeks) Converting units (1 week) Shape (2 weeks)	Area, perimeter and volume (1 weeks) Ratio and proportion (2 weeks) Statistics (1 weeks	Algebra (2 weeks) Position and direction (1week)	Consolidation of key learning, preparation for KS3 and further application of skills.

Year 2/3/4 times table overview 2023/2024											
Autumn 1				Spring				Summer			
Week	Year 2	Year 3	Year 4	Week	Year 2	Year 3	Year 4	Week	Year 2	Year 3	Year 4
1	MNS	Number facts	2/5/10	1	MNS	2x 4x	3x6x	1	5x	6x	12x
2	MNS	Number facts	2/5/10	2	MNS	8x	3x6x	2	5x	6x	12x
3	MNS	Number facts	2/5/10	3	MNS	8x	9x	3	5x	6x	12x
4	MNS	2/5/10	4x	4	MNS	8x	9x	4	5x	6x	Mixed, Squared
5	MNS	2/5/10	4x	5	MNS	8x	9x	5	5x	6x	Mixed
6	MSN	2/5/10	4x	6	MNS	8x	9x	6	5x	6x	Mixed
7	MNS	4x	4/8x								
8	MNS	4x	8x	7	10x	3x	7x	7	2x	Mixed	X Check
9	MNS	4x	8x	8	10x	3x	7x	8	2x	Mixed	X Check
10	MNS	4x	8x	9	10x	3x	7x	9	2x	Mixed	X Check
11	MNS	4x	3x	10	10x	3x	11x	10	2x	Mixed	
12	MNS	4x	3x	11	10x	3x	11x	11	2x	Review	
13	MNS	4x	3x 6x	12	10x	3x	11x	12	10,5, 2,	Review	
14	MNS	4x	3x6x					13	10,5, 2,		

St Stephen Arithmetic Journey



Curriculum Area in Action – MATHS

Intent

‘Every pupil matters; every moment counts’

Vision: The Mathematics curriculum at St Stephen ensures that our children understand and develop key skills that they will carry on into their everyday lives. The planning is sequenced to ensure prior learning is developed and enhanced by reasoning and problem-solving opportunities. We ensure all our children are fluent with arithmetic knowledge and skills.

We aim to:

- Ensure that every child has confidence in the recall of key number facts and arithmetic procedures, enabling them to access the whole maths curriculum with confidence and capability.
- Develop and practise key vocabulary and understanding through reasoning and explanation.
- Offer all children opportunities to problem solve and apply mathematical knowledge to the wider world.

Implementation for Maths	**Example to demonstrate expectations**
	At St Stephen, we follow the White Rose schemes of work as a basis for teachers to plan. We use a range of resources to supplement and enhance pupils' mathematical journey, including Master the Curriculum and the White Rose Resources. Within each mathematical area (building upon prior learning), the children explore and review number facts, learn and apply key vocabulary, develop and extend their reasoning and problem solving skills through small step progressive style questioning and retrieval. We have a rigorous approach to developing pupils' arithmetic skills and knowledge and provide dedicated time each day for this. As a school, we have agreed that this is central for developing pupils' confidence and enjoyment - leading to success for our learners.
Marking expectations	• Daily marking and/or verbal feedback given. • On the spot marking (where possible) to ensure any misconception or errors are addressed. • Whole school marking policy- Learning objectives highlighted (green, dash green, pink) and marked in black. Children complete TIC (Time for Improvement and Challenge) in green pen.
Teaching and Learning expectations	EYFS • Maths is everywhere within the environment and plays a part in daily routines. • Children are given the opportunity to become familiar with numbers and number resources (e.g. ten frames and number lines) • Songs and rhymes, which count on and back. • Discrete teaching time for all pupils on numbers and shape • Master the Curriculum overview and planning resources are used to support planning and teaching. KS1 Lesson Structure • Daily teaching and rehearsal of number facts using Maths Number Sense videos and questions • Whole class teaching input using key images followed by independent practice • Daily incidentals- misconceptions, additional time spent on rehearsal and writing of numbers (Year 1) • Maths Hub Number facts booklets are used, moving on to Maths Hub times table booklets in the second half of the Spring Term, in to the summer term. • A Reasoning and Problem solving floor book is added to daily where a key question is shared with the children and their responses are recorded.

	KS2 Lesson Structure • Daily teaching and rehearsal of arithmetic- 'I do, We do, You do' approach • Whole class teaching input using key images and procedures followed by independent practice • Times table teaching (counting stick, songs) followed by Maths Hub booklets (Year 3/4) • Weekly arithmetic test Whole School • Maths happens daily • Teachers will follow the school's calculation policy, which includes agreed images, terminology and procedures • Following of overviews of main teaching strands, key facts and times tables followed • Use of teaching slides which include key vocabulary, sentence stems, arithmetic questions, review of prior learning and main teaching points. • Maths linked within other subjects, demonstrating mathematical understanding in a range of subject areas. • Regular opportunities for AfL through a range of activities • TeachActive is used to enhance mathematical understanding **We understand all pupils (including those with SEND) benefit hugely from explicit, systematic instruction and systematic rehearsal of key facts and knowledge of procedures.**
<u>Working walls/Displays</u>	• Shared vocabulary and sentence stems • Examples taken from the school calculation policy • Examples of work linked to topic alongside models by the class teacher (WAGOLL) • Images to support learning • Posters to remain on display all year to promote understanding in areas such as time, fractions, shape. • Examples of Concrete, Pictorial, Abstract
<u>Assessment</u>	We use assessment to help pupils embed and use knowledge fluently, to check understanding and to inform teaching. • Weekly arithmetic papers (KS2)

	• Reviewing and practising through Maths Number Sense (KS1) • End of term assessments (taken from WRM) • Summative Assessment - EYFS, end of KS1 and the end of KS2 • Year 4 multiplication check • IDL software for children with barriers to learning in maths • Pupil Conferencing • Learning Walk/Lesson Observations • Work Scrutinies- colleague book looks in staff meeting time and whole school book looks carried out by maths lead and a maths partner/advisor and/or SLT.
Impact	Our pupils: • Enjoy mathematics because they have the fundamental skills and knowledge • Are confident in applying their skills to a range of situations, • Achieve well • Take risks, ask questions, enjoy challenge and are confident to make and learn from their mistakes. • Make links between their mathematical learning and the wider curriculum and life outside of the classroom.