

Early Years and Key Stage One

Nursery

Mathematics for young children involves developing their own understanding of number, quantity, shape and space. Babies and young children have a natural interest in quantities and spatial relations - they are problem-solvers, pattern-spotters and sense-makers from birth. Effective early mathematics experiences involve seeking patterns, creating and solving mathematical problems and engaging with stories, songs, games, practical activities and imaginative play. Plenty of time is required for children to revisit, develop and make sense for themselves. This is supported by sensitive interactions with adults who observe, listen to and value children's mathematical ideas and build upon children's interests, including those developed with their families. It is crucial to maintain children's enthusiasm so they develop positive self-esteem as learners of mathematics and feel confident to express their ideas.

Birth to 5 matters 2021

In Tiny Trees Nursery children will start to develop a sense of the cardinal value of a number and how it refers to the quantity of things it represents, e.g. the numerosity, 'how many ness', or 'three ness' of three. Children need to know number names, initially to five, then ten.

Opportunities:

- Counting forwards and backwards in games and number rhymes
- Starting from different numbers in games and play
- Correcting a puppet who thinks the amount has changed when their collection has been rearranged?
- Counting out loud as far as they can
- Recognising two, three or four things without counting and showing 'finger numbers'
- Giving two, three or four things when asked
- Recognising number symbols to 5, and those related to their lives, e.g. bus or door numbers and ages of siblings
- Checking whether small amounts have been shared fairly
- Creating and building towers and enclosures
- Collecting things that are alike (or different!)
- Lining up or arranging objects in a pattern

Planning will be supported by 'Birth to 5 Matters' Range 4 and 5 p.97-101



EYFS/Reception

Maths in EYFS will focus on the 6 areas of Early Mathematics learning;

- Cardinality and Counting
- Comparison
- Composition
- Pattern
- Shape and Space
- Measure

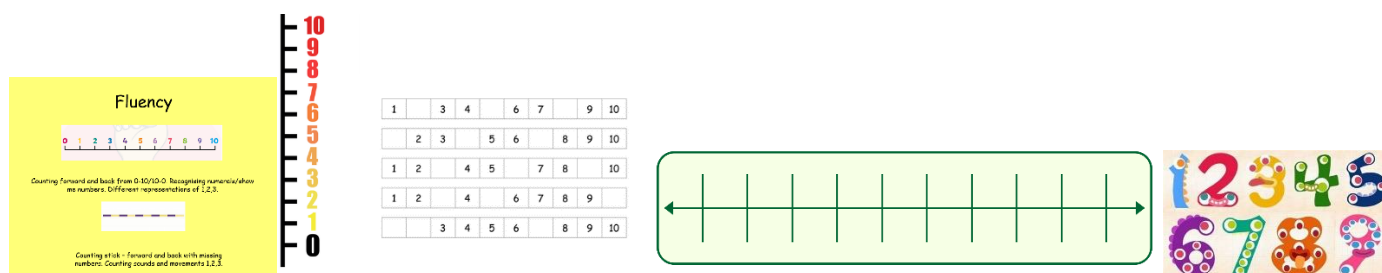
Teaching will be supported by White Rose schemes of learning, NCTEM and 'Birth to 5 Matters' Range 6.

What this looks like:

Daily maths input and opportunities planned to develop children's understanding of the 6 areas of early mathematical learning.

Part 1: Fluency and Oral Reasoning -

Oral counting forward and backwards using varied prompts, different stop/starting points, show me numbers with questioning throughout. Show me, tell me, prove it, convince me etc.



Part 2: Number focus - Developing a strong sense of 10. Understanding the link between numbers and quantity (representing numbers in many ways). Investigating how quantities are composed of smaller parts. Knowing how the numbers relate to one another and being able to compare and order them. Exploring how quantities change when you add more items or take items away. Maths talk embedded throughout.



Part 3: White Rose teacher modelling I do, we do. Teacher to model mathematical language.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Autumn	Getting to Know You	Just Like Me!	It's Me 1 2 3!								Light and Dark		Consolidation	
Spring	Alive in 5!	Growing 6, 7, 8	Building 9 and 10								Consolidation			
Summer	On the Move	Superhero to 20 and Beyond	First then Now	Find my Pattern									Consolidation	

Part 4: Small groups, individual and play based learning. Verbal A,P,E questioning throughout and Teacher AfL to plan any necessary adaptations for next lessons/interventions.

Key Stage One

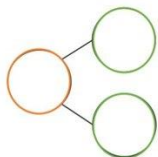
Part 1: Fluency and Oral Reasoning

What this looks like:

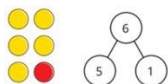
- 1) Daily oral practise of number facts with actions, games and one weekly written practise within this part of the lesson
- 2) Use of number facts with variation, developing examples, representations and models that are carefully selected to deepen learning.

Part 2: Questioning throughout

- 1 Take 7 counters (3 red and 4 blue). Complete the part-whole model.



- 3 Complete the fact family:



$$\begin{array}{l} _ + 1 = 6 \quad _ = _ + 1 \\ 1 + _ = 6 \quad 6 + _ = 5 \end{array}$$

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$$\begin{array}{l} _ + _ = _ \\ _ + _ = _ \end{array}$$

- 4 Complete the fact family.



$$\begin{array}{l} _ + _ = 7 \quad 7 = _ + _ \\ _ + _ = 7 \quad 7 = _ + _ \end{array}$$

Once a week the children will further explore mathematical concepts practically through the use of 'say it, draw it, make it' to consolidate counting, writing of numerals and to deepen understanding of number and representation.



Part 3: Recap prior learning. Break down the WALT with children

Part 4: I do, we do, you do modelling using White Rose slides, as appropriate to support WALT teaching

Part 5: Review lesson 'What have you learnt today?' Revisit WALT. Teacher AfL to inform adaptations for next lessons.

Key Stage Two

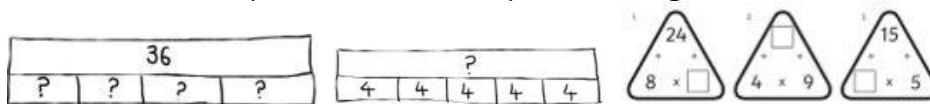
Part 1: Fluency and Oral Reasoning

What this looks like:

1) Daily oral practise of times tables facts with actions, games followed by a written activity, incorporating different representations and variation within fluency.

1x4=	2x4=	3x4=	4x4=	5x4=	6x4=	7x4=	8x4=	9x4=	10x4=	11x4=	12x4=
2x4=	3x4=	4x4=	5x4=	6x4=	7x4=	8x4=	9x4=	10x4=	11x4=	12x4=	
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9x4=	10x4=	11x4=	12x4=								
10x4=	11x4=	12x4=									
11x4=	12x4=										
12x4=											

2) Use of times tables facts with variation, developing examples, representations and models that are carefully selected to deepen learning.



Once a week throughout KS2 the children will explore times tables using related facts, to further deepen understanding and apply their learning, drawing on previous learning and developing confidence throughout different areas of mathematical learning.

'If I know I also know ...' $3 \times 6 = 18$ 3 and 6 are factors of 18 $30 \times 6 = 180$ $3 \times 60 = 180$ $1/3$ of 180 is 60

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Part 5: Review lesson 'What have you learnt today?' Revisit WALT. Teacher AfL to inform adaptations for next lessons.