



Mastering Number (KS1) Parent & Carer workshop

Tuesday 21st November



The role and purpose of mastering number

- + All children will:
 - Develop good number sense
 - Have automaticity in additive facts



What is mastering number?

- + teaching four short sessions each week, in addition to the daily maths lesson, aimed at developing children's fluency and flexibility with number

Mastering Number

Year 1 Session

Clip 1:
Making 7 on the
top row of the rekenrek

Mastering Number 2021/22



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Mastering Number

Year 2 Session

Clip 2:
Visualising the rekenrek

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Year 2 Session

Clip 3:
Exploring equations
with missing parts

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The importance of mastering number

Whilst some progress to use their knowledge in a flexible and powerful way, **others seek security in counting procedures** which work promisingly in simple tasks but fail to generalise when greater sophistication is required.

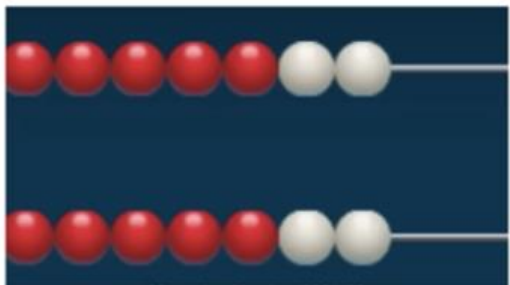
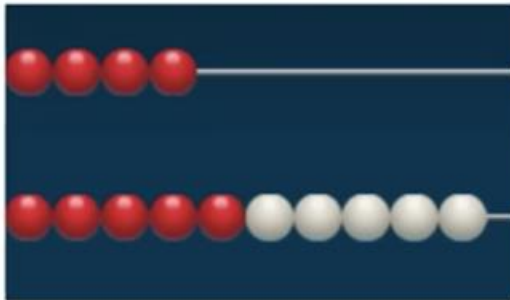
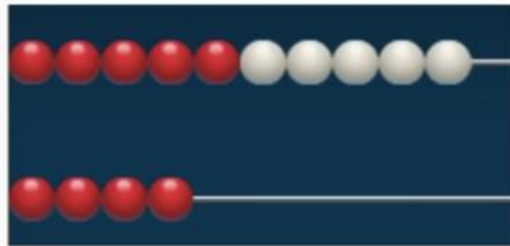
+ So... don't count, but what do you do instead?

Gray, E.M. and Tall, D.O., 1994. Duality, ambiguity, and flexibility: A "proceptual" view of simple arithmetic. *Journal for research in Mathematics Education*, 25(2), pp.116-140.

Gaining 'automaticity'

- + Automaticity with facts is important because it frees the mind to think about concepts
- + The automatic retrieval of basic maths facts is critical to solving complex problems, because complex problems have simpler problems embedded in them

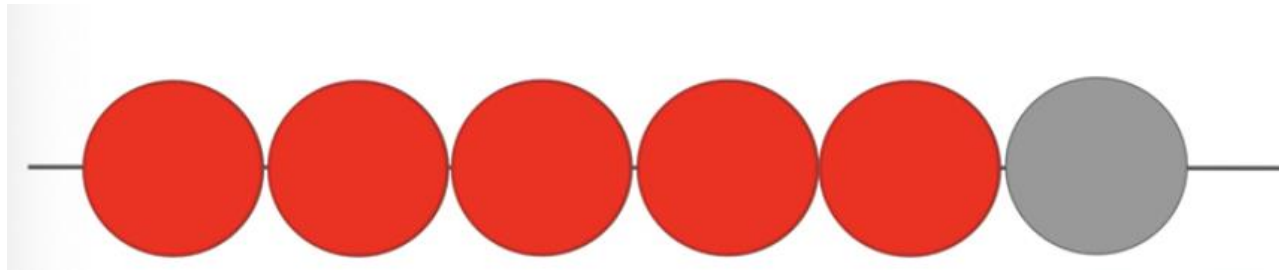
'Seeing' the maths



+ Make 14

Place value: 'Think of the 10 first'

Drawing attention – what do you see?



- + All children need to focus on the same mathematical structure as this will impact on future learning

Play from 11:50 to 13:16

**Mastering Number
Autumn Start 2022**

An introduction to the
programme

September 2022



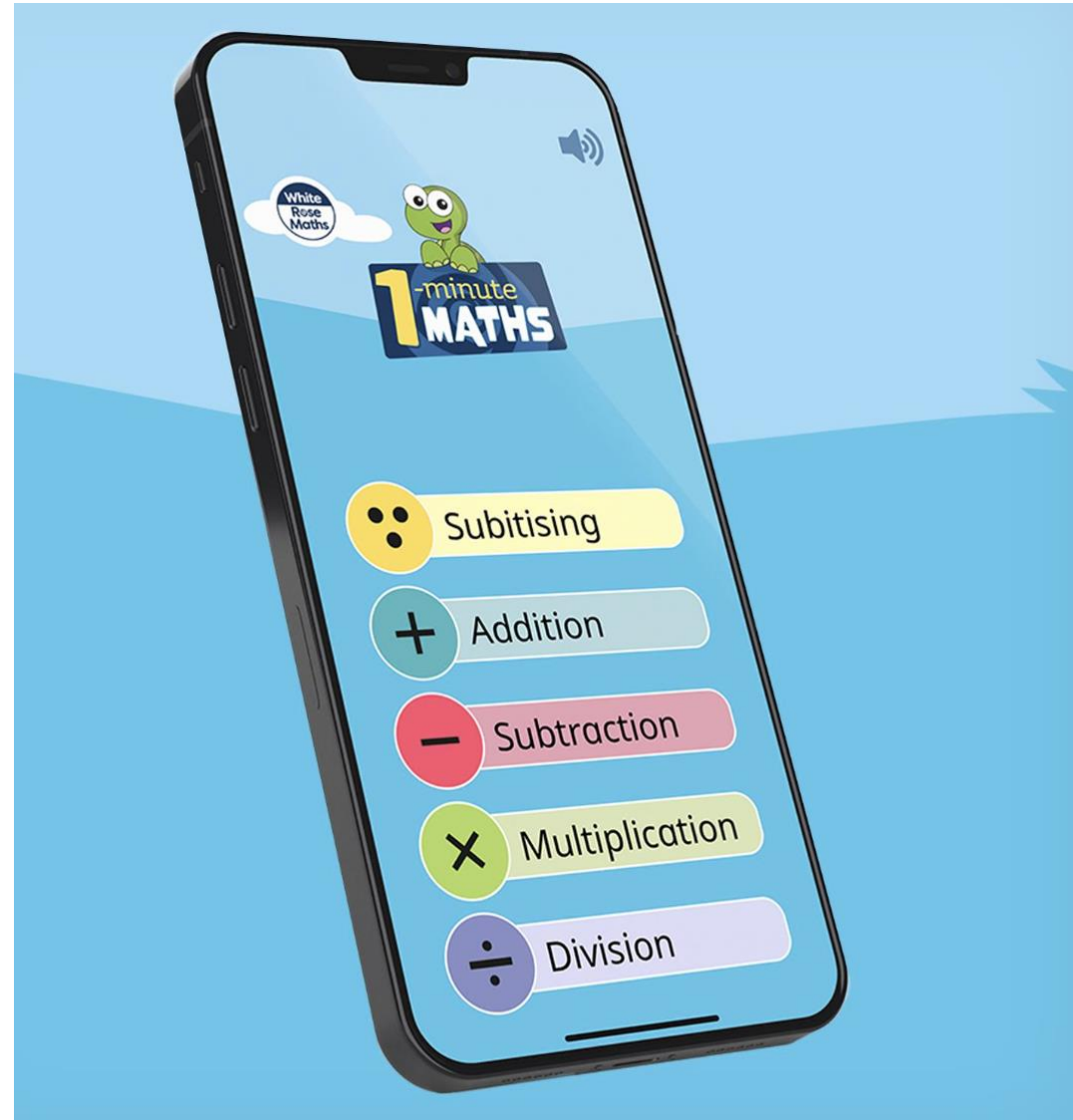
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Small steps – Y1 Autumn Overview

Autumn 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Focus	Composition	Composition	Composition	Comparison	Counting, ordinality and cardinality	Composition
Set 1	Practise subitising Recap the composition of 5	Focus on the composition of 6, 7, 8 and 9 as '5 and a bit'	Focus on the composition of 6, 7, 8 and 9 as '5 and a bit'	Compare sets of objects by matching Use the language of comparison: <i>more than</i> and <i>fewer than</i>	Recap the order of numbers to 10 using the 'staircase' pattern Identify numbers that are '1 more' or '1 less' and apply this to sets of objects	Focus on numbers that can be made with 'doubles' Recap that even numbers can be made with 2 equal parts
Autumn 2	Week 7	Week 8	Week 9	Week 10	Week 11	
Focus	Composition	Composition	Composition	Composition	Counting, ordinality and cardinality	
Set 2	Focus on odd and even numbers See that even numbers can be composed of 2s, and odd numbers have 'an odd 1'	Focus on the composition of 6 Use the 2-by-3 'egg box' pattern and the rekenrek to find all the ways that 6 can be composed	Focus on the composition of 8 Use 2-by-4 grid and the rekenrek to find all the ways that 8 can be composed	Focus on the composition of 10 Use 2-by-5 grid (10-frame) and the rekenrek to find all the ways that 10 can be composed	Focus on representations of ordinality Compare number tracks and number lines	

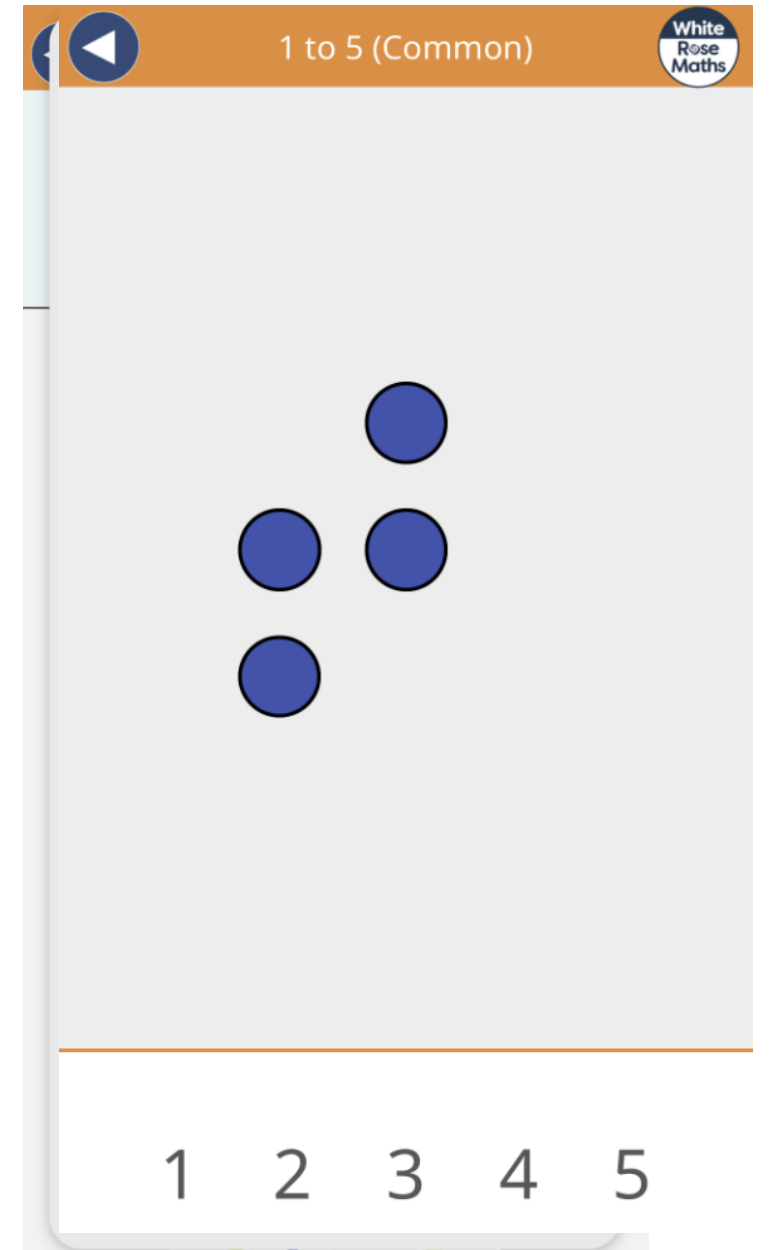
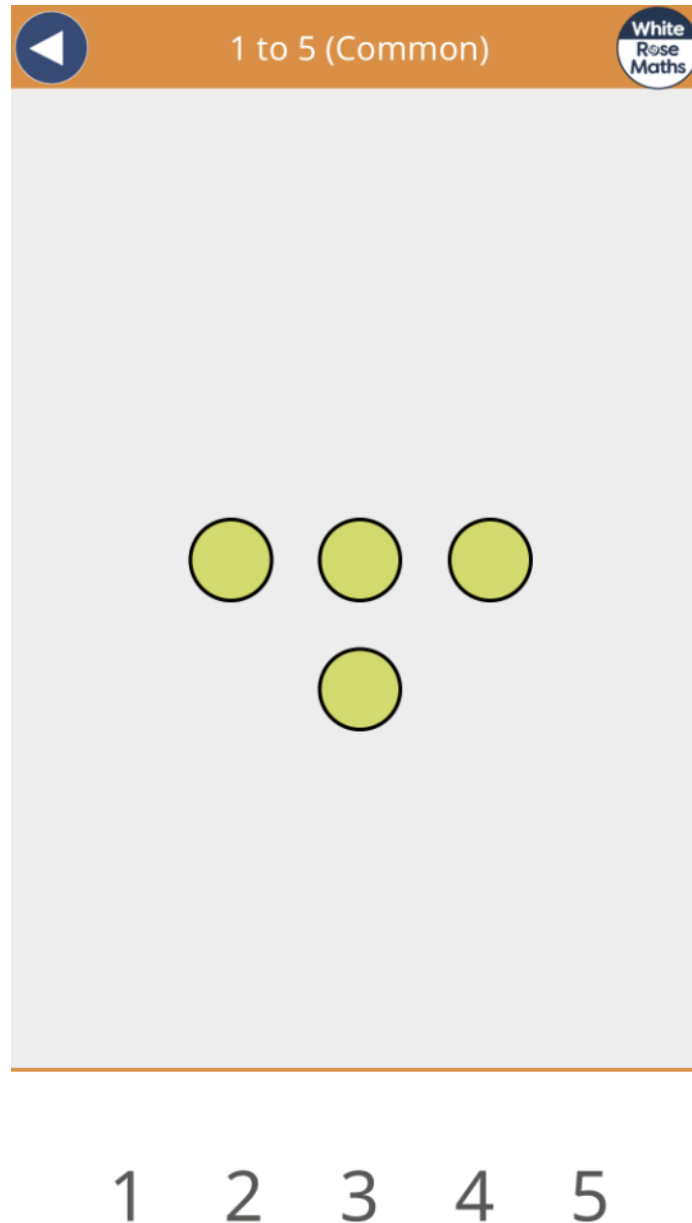
How to support at home

- + Subitise
- + Number facts
- + 'see' the maths
- + Encourage strategies that reduce the need for counting



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Questions?

Feedback

