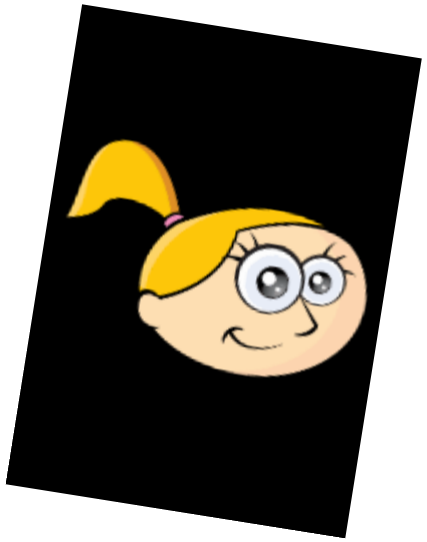
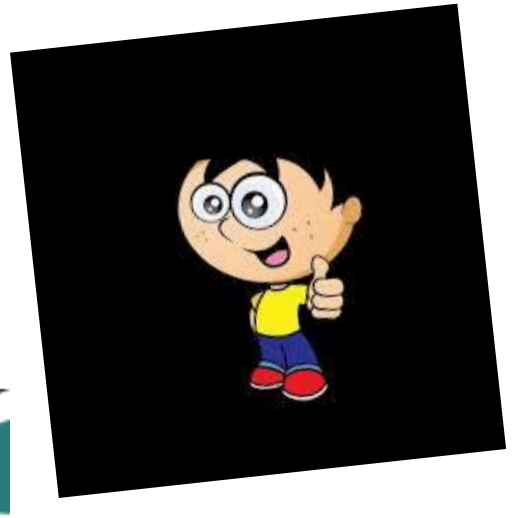
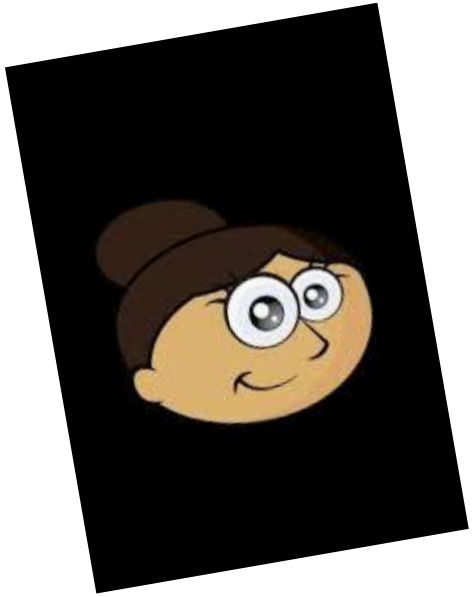
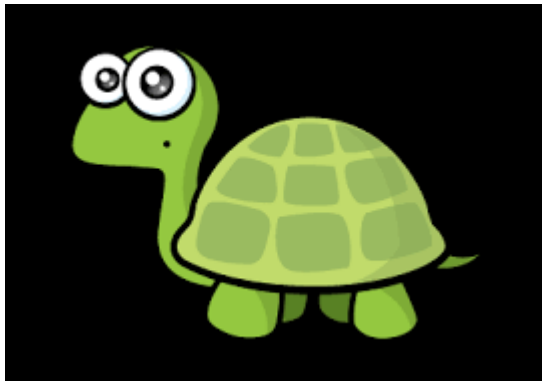


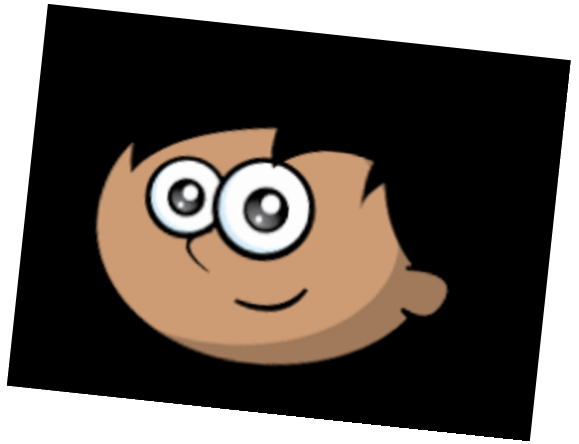
How do we teach maths at Lawn Primary and Nursery School?



White Rose Maths





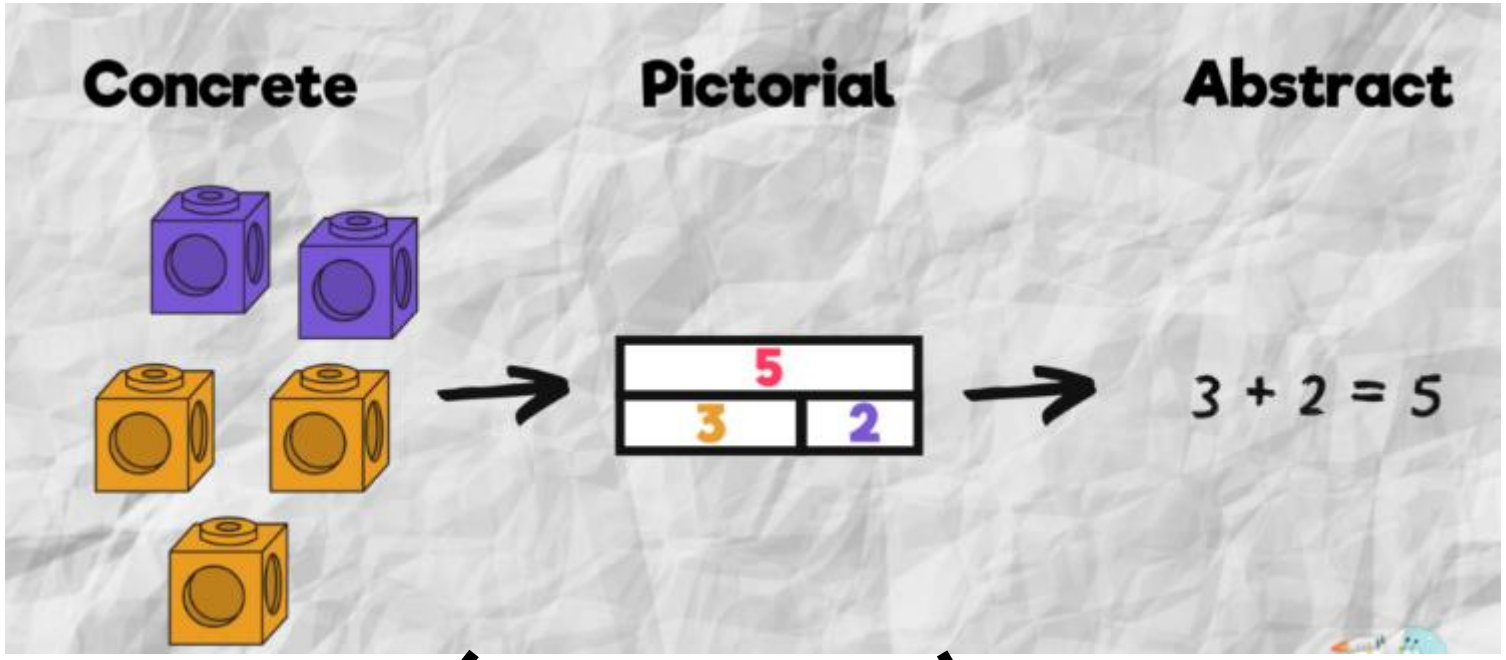


Why White Rose?

- The White Rose Maths curriculum is designed to provide pupils with a solid foundation in mathematics. The primary curriculum puts a significant emphasis on mathematical skills, curriculum content has to be well sequenced in order to promote a depth of understanding.

- It is based on developing a conceptual understanding of mathematics by using concrete objects, pictorial representations and abstract thinking.

- It is based on an inclusive approach.



Fluency

Reasoning

What is a mastery approach?

Maths mastery is a teaching and learning approach that aims for pupils to develop deep understanding of maths rather than being able to memorise key procedures or resort to rote learning.

Challenging

Inclusive

“Pupils who do poorly in maths early on find it harder to turn this around and achieve highly at the end of secondary school compared with pupils who do poorly in English at Key Stage 2, who have a somewhat higher chance of going on to do well despite early difficulties.”

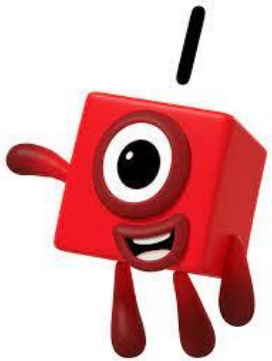
‘A Space for Maths’, Centre for Education and Youth, September 2021

Mathematics in the EYFS

Our curriculum

https://whiterosemaths.com/resources?year=early-years

- We follow **White Rose Maths** schemes of learning for maths teaching which covers our Statutory Framework.
- We teach **discrete** maths carpet times to teach direct knowledge and to excite learners to explore maths concepts in their play.
- We strongly believe that ‘maths is everywhere’ and our planning allows your child to follow their own mathematical curiosities and interests.



Reception - Notes and guidance

Autumn Progression

Number and Place Value	Numbers to 5	One, two, three
		Four
		Five
Addition and Subtraction	Sorting	Sorting into groups
Number and Place Value	Comparing groups	Comparing quantities of identical objects
		Comparing quantities of non-identical objects
Addition and Subtraction	Change within 5	One more
		One less
Measurement	Time	My day

Spring Progression

Addition and Subtraction	Numbers to 5	→ Introducing zero
		→ Number bonds to 5
Number and Place Value	Numbers to 10	→ Counting to 6, 7 and 8
		→ Counting to 9 and 10
		→ Comparing groups up to 10
Addition and Subtraction	Addition to 10	→ Combining two groups to find the whole
		→ Number bonds to 10 – ten frame
		→ Number bonds to 10 – part-whole model
Geometry	Shape and space	→ Spatial awareness
		→ 3-D shapes
		→ 2-D shapes

Reception - Notes and guidance

Summer Progression

Geometry	Exploring patterns	→ Making simple patterns
		→ Exploring more complex patterns
Addition and Subtraction	Count on and back	→ Adding by counting on
		→ Taking away by counting back
Number and Place Value	Numbers to 20	→ Counting to 20
Multiplication and Division	Numerical patterns	→ Doubling
		→ Halving and sharing
		→ Odds and evens
Measurement	Measure	→ Length, height and distance
		→ Weight
		→ Capacity


Number
BLOCKS

"But how do children do maths at Lawn?"

We believe maths should be fun and 'hands-on'.

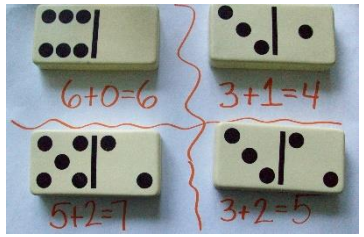
We believe children are naturally enquiring and it is our role to provide opportunities for children to explore, investigate, problem-solve, reason and have plenty of opportunities to talk about maths.

"What resources can we use to support early maths?"

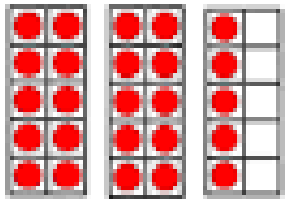
Children should be able to 'see the maths'.

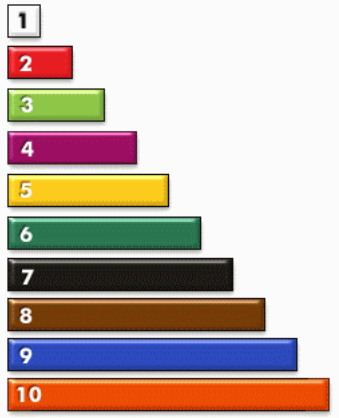
We believe children need plenty of opportunities to make connections between numbers and operations and to see, and then talk about, their discoveries and the patterns that emerge. A range of resources (and structures) allow children to 'see the maths'.

Concrete and pictorial resources

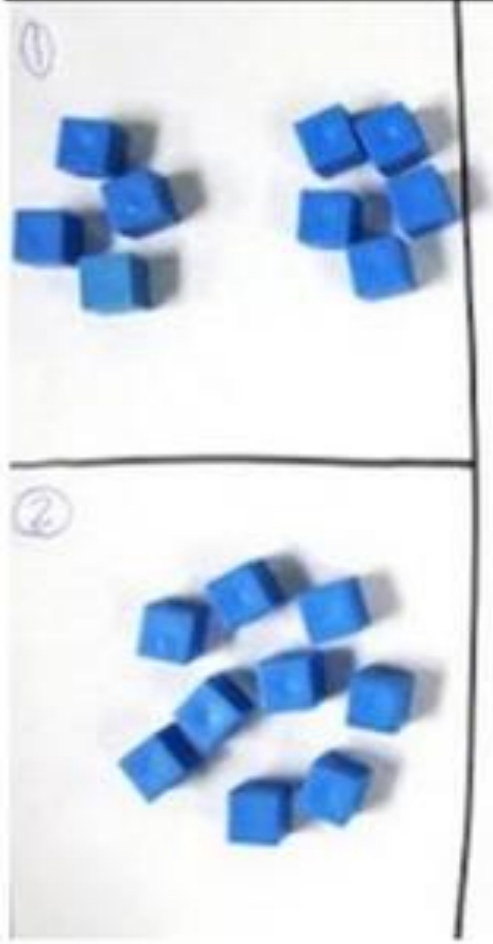
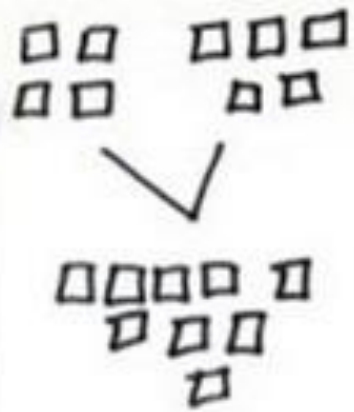


Ten Frame





1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

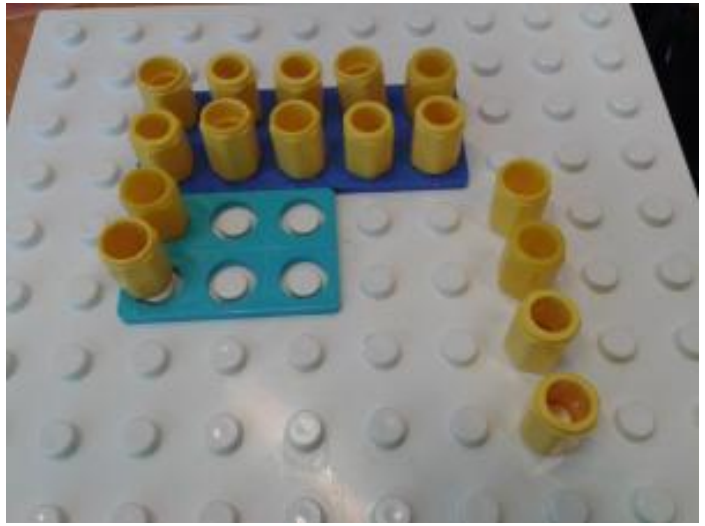
Concrete	Pictorial	Abstract
		4+5=9

Numicon – number shapes.

Children learn these shapes represent a number and then use these shapes for calculations.

Activity – Can you use the counting resources to solve this number sentence – 7+3=

Numicon – for subtraction, halving and doubles



Numicon allows children to 'see' doubling and halving.

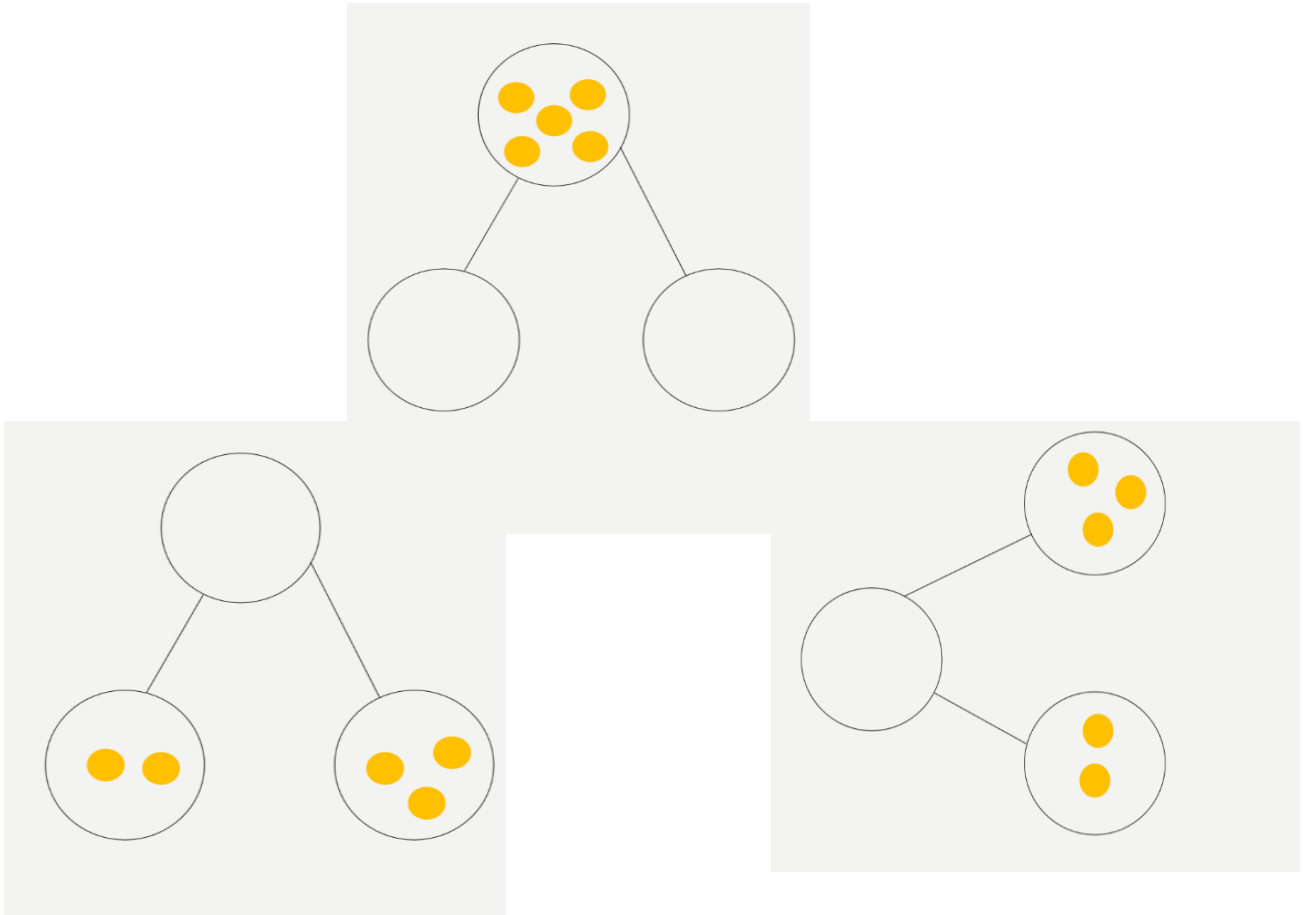
Part - Part – Whole – Structures

These enable children to see the maths happening (and can be built upon as children move through the year groups)

Concrete resource.

Part - Part – Whole (Moving from concrete to pictorial)

Pictorial structure – to support addition, number bonds, equality, related number facts.



Then, moving from pictorial to abstract.

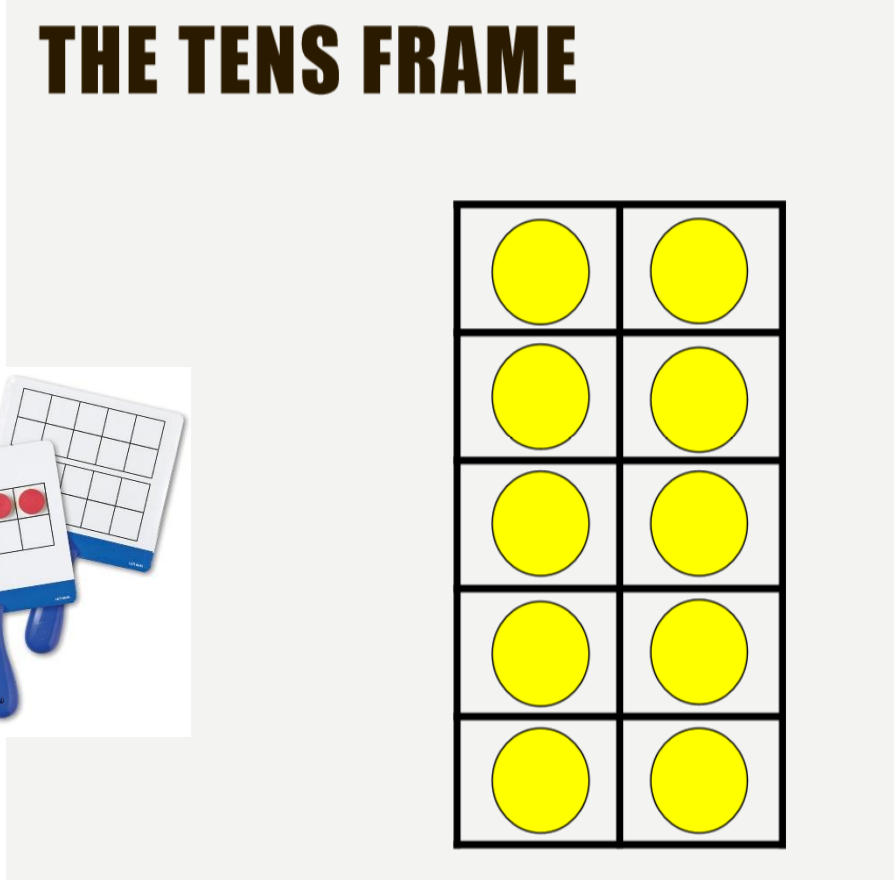
5 = 2 + 3
2 + 3 = 5

3 + 2 = 5

1 + 4 = 5
4 + 1 = 5

5 + 0 + 5
5 + 0 = 5

Using the tens frame as a structure:

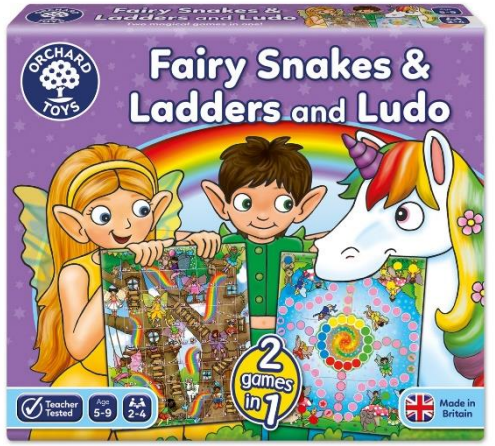


Subitising numbers - instant number recognition.

“A strong 'sense of ten' needs to be developed as a foundation for both place value and mental calculations” – Jenni Way, Professor of Maths.

How to further support your child / children at home……

"Board games boost early maths skills" https://www.theguardian.com/education/2008/mar/25/schools.uk3



*Count anything and everything!
*Show an interest in numbers in everyday life –speed signs; door numbers; checkout numbers, on buses / trains, on signs.
* Problem-solve at home – Have we got enough plates?
How many shoes could fit on the mat?