

Calculation Policy 2018/2019:

How maths is taught in KS1 at
West Lodge
Primary School



Maths at West Lodge – Our Vision

All children at West Lodge enjoy Mathematics and are able to see the beauty in it. The spark is lit within them through the use of enriching learning opportunities. Children explore concepts through concrete apparatus, pictorial imagery and link this to abstract ideas and calculations. We believe that all children are capable of understanding and succeeding in Mathematics. Learning best happens when children's misconceptions are understood, addressed and supported through challenging work. Mistakes are expected, reflected upon and treated as a learning opportunity.

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent in the fundamentals of mathematics**, including 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
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can 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

- **Our calculation policy is aimed to help children become more fluent in maths while also allowing them to gain the understanding and knowledge they need to reason mathematically**



Do these represent an understanding of
place value?

$$\begin{array}{r} 52 \\ + 29 \\ \hline 711 \end{array}$$
$$91 - 48 = 57$$
$$\begin{array}{r} 91 \\ - 48 \\ \hline 57 \end{array}$$

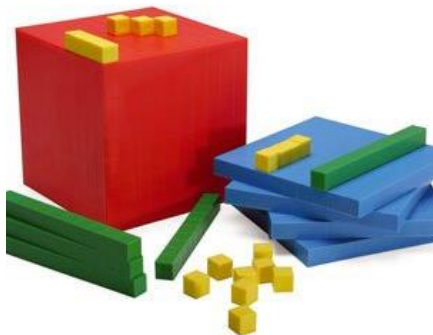
$$\begin{array}{r} 29r2 \\ 6 \overline{) 1256} \end{array}$$



How has the Calculation Policy changed?

1000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$



Year 1

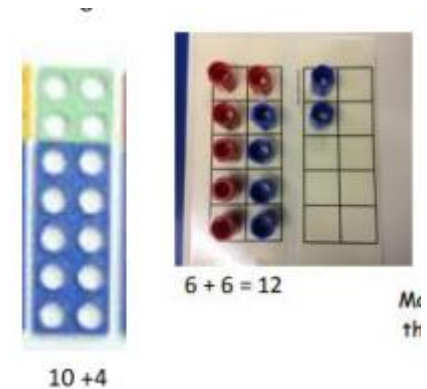


Adding 1s

	33	34	35	36
Adding 10s	43	44	45	46
	53	54	55	56

$33 + 12 = 45$

- The children will use manipulatives in all lessons to complete problems related to the four operations
- No formal or writing methods are taught in Year 1
- Bar model is taught as pictorial representation
- Once the children are fluent with a number track, they will move on to a hundred square

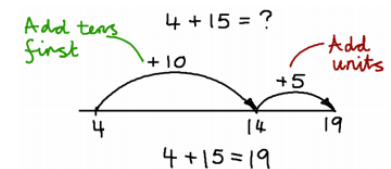


Year 2

- Children will begin to use pictorial representations along side using concrete objects
- Children will learn to use a number line to add and subtract. They will use dienes to support their understanding of partitioning
- Children will continue to develop the use of bar modelling to solve multiplication and division problems



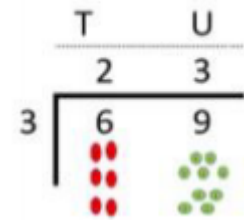
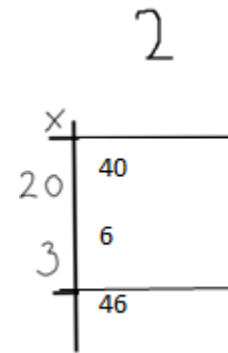
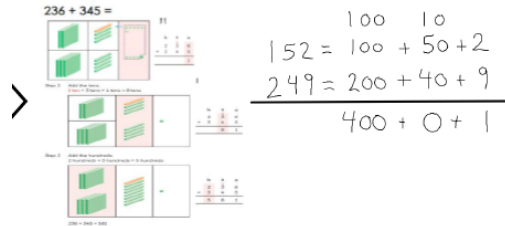
15				
3	3	3	3	3



The Expanded Method of Addition.

An emphasis will be placed on carrying tens to the next column.

Year 3



- Transition from visual representations to formal methods
- The expanded form of addition and subtraction are taught alongside place value counters and place value mats
- Short division and the grid method are taught alongside place value counters
- Focus on understanding and development of mental calculation, and knowledge of place value



Over to our pupils.....



Helpful Resources

- My Maths
- White Rose Maths
- Barvember
- Khan Academy

