St. Leonard's CE Primary School Calculation Policy EYFS

Safeguarding Children In Banbury

About St. Leonard's Calculation Policy

The following calculation policy has been devised to meet requirements of the National Curriculum 2014 for the teaching and learning of mathematics; it is also designed to give pupils a consistent and smooth progression of learning in calculations across the school.

Age stage expectations:

The calculation policy is organised according to age stage expectations as set out in the National Curriculum 2014 and the method(s) shown for each year group should be modelled to the vast majority of pupils. Pupils are taught according to the pathway that they are currently working at and are showing to have 'mastered' a pathway before moving on to the next one. Of course, pupils who are showing to be secure in a skill can be challenged to the next pathway as necessary.

Maths Mastery:

At the centre of the mastery approach to the teaching of mathematics is the belief that **all children have the potential to succeed**. They should have access to the same curriculum content and, rather than being extended with new learning, they should **deepen their conceptual understanding by tackling challenging and varied problems**. Similarly, with calculation strategies, children must not simply rote learn procedures but demonstrate their understanding of these procedures through the use of concrete materials and pictorial representations. This policy outlines the different calculation strategies that should be taught and used in Year 1 to Year 6 in line with the requirements of the 2014 Primary National Curriculum.

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Mathematical Language:

The 2014 National Curriculum is explicit in articulating the importance of children using the correct mathematical language as a central part of their learning (*reasoning*). Indeed, in certain year groups, the non-statutory guidance highlights the requirement for children to extend their language around certain concepts. It is therefore essential that teaching using the strategies outlined in this policy is accompanied by the use of appropriate and precise mathematical vocabulary. New vocabulary should be introduced in a suitable context (for example, with relevant real objects, apparatus, pictures or diagrams) and explained carefully. High expectations of the mathematical language used are essential, with teachers only accepting what is correct.

How to use the policy:

This calculation policy is a guide for all staff and parents of St Leonard's Primary school and has been adapted from work by PiXL. It is expected that teachers will use their professional judgement as to when consolidation of existing skills is required or if to move onto the next concept. However, the **focus must always remain on breadth and depth rather than accelerating through concepts.** Children should not be extended with new learning before they are ready, they should deepen their conceptual understanding by tackling challenging and varied problems.
Teachers can use any teaching resources that they wish to use and the policy does not recommend one set of resources over another, rather that, a variety of resources are used. The principle of the concrete-pictorial-abstract (CPA) approach [Make it, Draw it, Write it] is for children to have a true understanding of a mathematical concept.

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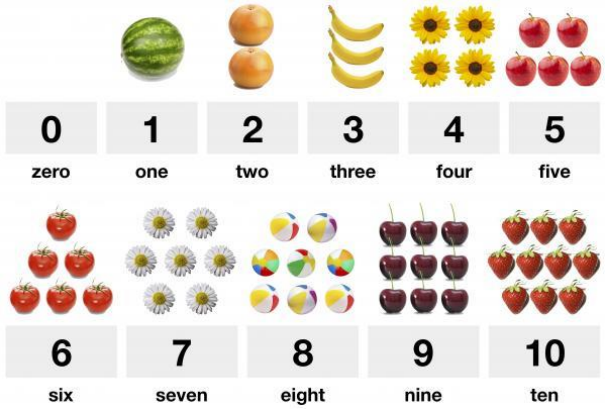
Addition: Early Years

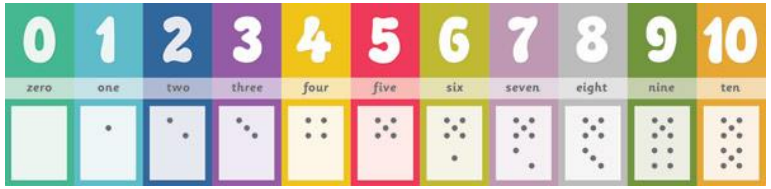
Early learning goals:

- ✓ Have a deep understanding of number to 10, including the composition of each number.
- ✓ Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

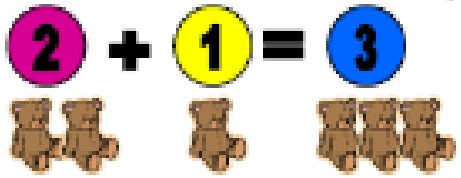
Recognise numbers up to 10 and understand the meaning of each number by recognising and knowing their clusters.



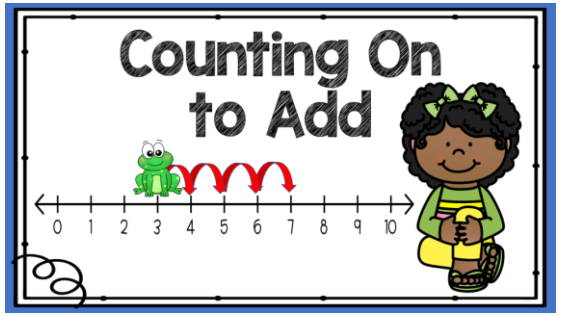
Count on in ones and say which number is one more than a given number using a number line or number track to 10.



Begin to relate addition to combining two groups of objects using practical resources, role play, stories and songs.



Know that counting on is a strategy for addition. Use numbered number lines to 10.

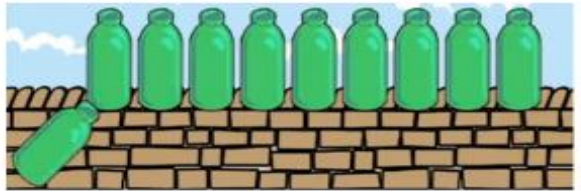


Subtraction: Early Years

Early learning goals:
✓Have a deep understanding of number to 10, including the composition of each number.
✓ Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts

Say which number is one less than a given number using a number line or number track to 20.

Begin to count backwards in familiar contexts such as number rhymes or stories.

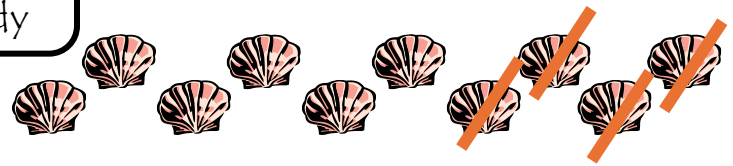


10 Green Bottles sitting on the wall
…

5 little ducks went swimming one day…

Begin to relate subtraction to 'taking away' using concrete objects and role play.

Three teddies take away two teddies leaves one teddy



If I take away four shells there are six left

Count backwards along a number line to 'take away'

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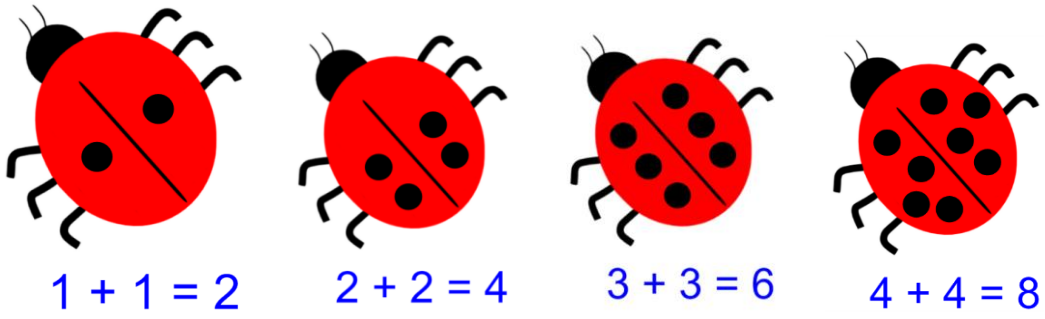
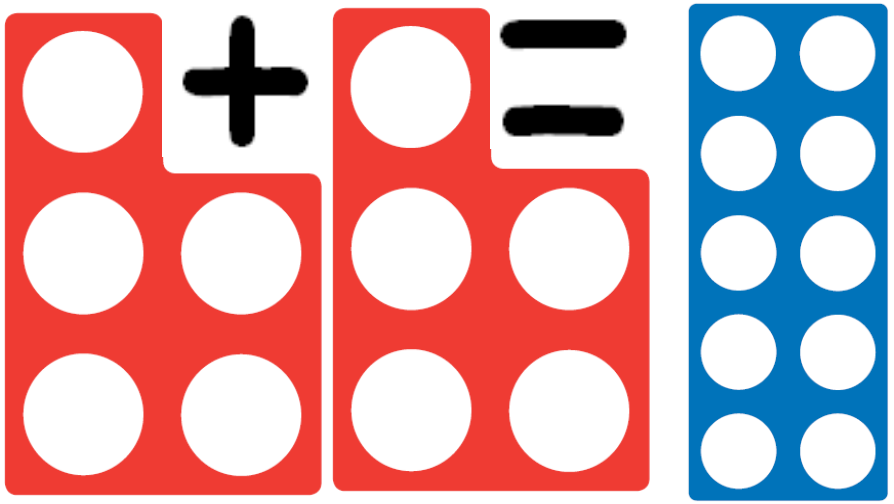
Multiplication: Early Years

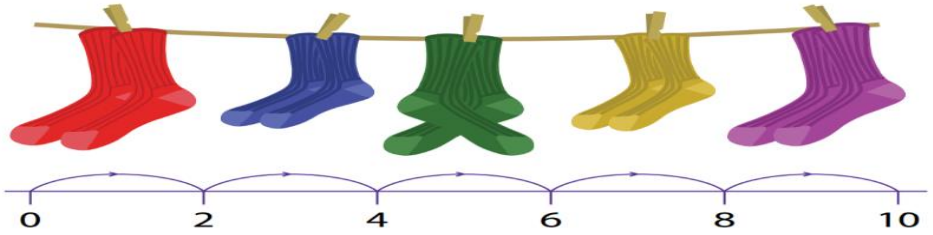
Early learning goal statutory requirement:
✓Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

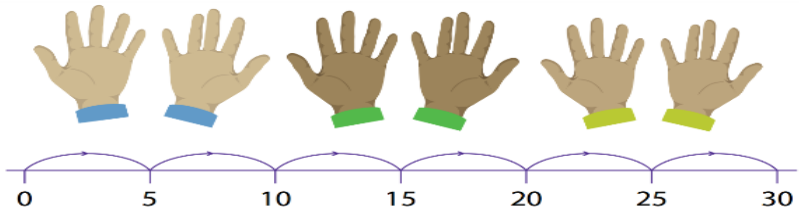
Use pictorial representations and concrete resources to double numbers to 10.





Use concrete sources, role play, stories and songs to begin counting in twos, fives and tens.

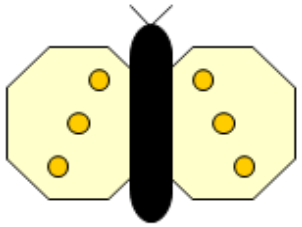


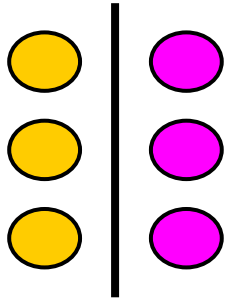


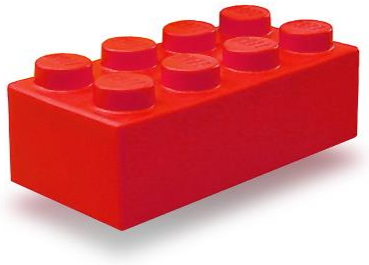
Division: Early Years

Early learning goal statutory requirement:
✓Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally..

Use pictorial representations and concrete resources to halve numbers to 10.







Begin to share quantities using practical resources, role play, stories and songs.

Role play example:
It is the end of the party and the final two teddies are waiting for their party bags. Provide empty party bags and a small collection of items such as gifts, balloons and slices of cake. Ask the children to share the objects between the two bags.