Bullion Lane Primary School

Calculation Policy

Calculation Policy

This policy outlines both the mental and written methods that should be taught from Year 1 to Year 6. The policy has been created alongside the National Curriculum 2014 and the Big Maths programme, which has been adapted to meet the needs of Bullion Lane Primary School.

The document builds on the interconnectedness of mathematics and outlines the progression for addition, subtraction, multiplication and division. Additionally, it is set out as a series of hierarchical steps, which build on prior learning. As this is standardised throughout school, it ensures continuity and avoids confusion.

It is our intention that addition then subtraction will be taught consecutively and multiplication and division to ensure children are able to see the clear links between the operations and the inverse nature of them.

Children should be secure with mental strategies. They are taught the strategy of counting forwards and backwards in ones and tens first and then other strategies are introduced, such as near doubles and concepts.

Furthermore, children are taught to look carefully at the calculation and decide which strategy they should use. Next, they should explain (and reason) as to why they have chosen a strategy and whether it is the most efficient.

The formal written methods should be introduced when the children are ready.

For calculations that require a written method, these should be presented to the children using, manipulatives, models, and images, such as dienes apparatus; place value counters; etc. to ensure children have a conceptual understanding of the written method. Children should realise that it is not a process that they use for every type of calculation – they should think about whether it can be completed mentally (or mentally with jottings).

The policy outlines the mental strategies that children should be encouraged to use:

- A mental strategy that they can always rely on, E.g. counting in tens and ones, forwards and backwards E.g. 56 – 25 (count back in 10s 56, 46, 36 and back in ones 36, 35, 34, 33, 32, 31)
- A strategy they can select from if they can see something special about the numbers they are being asked to calculate with. E.g. 46 – 24 (I can use near doubles to support my calculation E.g. 46 – 23 – 1, or Smile Multiplication, E.g. 40 x 3 – do the tables bit then count the zeroes in the question and add them to understand the place value).

The policy outlines the written methods as well as suggesting that children:

- Look at a calculation and decide whether it can be done mentally, mentally with a jotting or whether it needs a written method (which may differ for different children).
- Should always be shown written methods in relation to place value (whether with the use of apparatus or without) to ensure children are clear about the value of the numbers that they are calculating with so the numbers do not just become digits.
- Estimate, calculate and check to ensure that the answer they generate has some meaning.

For the purpose of developing understanding, there may be occasions when examples that can be completed mentally may be shown as a written method purely to develop understanding of the method. This needs to be made very clear to children so that when they are practicing the methods, appropriate calculations are used.

Date written: January 2024

Date agreed and ratified by Governing Body: February 2024

Date of next review: January 2025