

Bradley Primary School Addition Calculation Policy Written October 2022 Mrs S. Richards and Mrs C. Bowie

This policy has been adapted from the White Rose Calculation Policy with additional material added.

This policy is written in line with the National Curriculum (2014) expectations and it should be used to support children in developing a deep understanding of number and calculation. It works alongside our school vision of mastery for mathematics. We aim for children to become confident and fluent mathematicians. Children should progress through the stages working towards formal written methods (where appropriate). After a method has been taught, children should be able to make their preferred choice for the most appropriate, efficient and accurate method for them. Previous strategies may need to be revisited to consolidate understanding when introducing a new strategy. As each new strategy is introduced, children should have the opportunity to explore them, alongside methods they are secure with, to make connections and identify the similarities and differences.

Concrete, Pictorial, Abstract (CPA) Approach

Children of all ages are first introduced to new mathematical learning by using real objects (concrete resources). They are offered a 'hands on' experience with manipulatives to support their fundamental knowledge as a foundation for their conceptual understanding. This is then followed by a pictorial representation which reflects the concrete manipulatives previously used. The children then make connections between the concrete resources and the pictorial representations. After sufficient foundation knowledge is gained, the pupils move onto an abstract representation using mathematical notations. To begin with, this concept is used parallel with the pictorial and concrete representations to secure the children's knowledge of all procedures. These skills are reinforced through all representations being used throughout school, irrespective of the year group.

Reasoning and Problem Solving

Children are regularly exposed to reasoning and problem solving questions to embed their understanding of the skills gained within a topic. They use their learning in real-life contexts to solve complex and abstract problems, considering skills gained in previous areas of learning.























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