Written Calculation Policy.

Introduction

Children are introduced to the processes of calculation through concrete, pictorial and abstract activities. This approach to teaching helps children to develop a deep and sustainable understanding of maths; it is an important technique of maths mastery.

Concrete: This is the “doing” stage. During this stage, children use concrete objects to model problems. With the concrete, pictorial and abstract approach to maths, abstract concepts are first introduced using physical, interactive concrete materials. This stage helps the children to *see* the maths they are doing and thus helps develop their mathematical understanding.

Pictorial: This is the “seeing” stage. Here, visual representations of concrete objects are used to model problems. This stage encourages children to make a mental connection between the physical object previously handled and the abstract pictures, diagrams or models that represent the objects from the problem. Children are encouraged to build or draw a model to make it easier for them to grasp difficult concepts.

Abstract: This is the “symbolic” stage, where children use abstract symbols to model problems. Children need to have grasped the concrete and pictorial stages before progressing to this stage. They will use mathematical symbols to indicate addition, subtraction, multiplication and division.