

CALCULATION POLICY: OVERVIEW



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Grange Park Primary School

Calculation Policy; Overview

What is the purpose of the Calculation Policy?

The purpose of this Calculation Policy is to ensure consistency and progression in the teaching of the different calculation methods across the school.

What is the aim of the Calculation Policy?

It aims to give an overview of the key written calculation strategies that will be taught in all year groups, as well as provide visual guidance for the models and images used to support the understanding of each calculation.

How is the Calculation Policy set out?

Each operation is broken down into skills and each skill has a dedicated page showing the different models and images that could be used to effectively teach that concept. These skills need to be taught, practised and reviewed constantly.

How is the 'Concrete, Pictorial, Abstract' approach implemented?

Our Calculation Policy provides guidance on how to implement the key principles behind Maths Mastery and support how we teach maths - with challenge for all at the heart. The *CPA approach* proposes that there are three steps (or representations) necessary for pupils to develop understanding of a concept: concrete, pictorial and abstract.

Concrete representation

The active stage - a child is first introduced to an idea or a skill by acting it out with real objects. This is a 'hands on' component using real objects and it is the foundation for conceptual understanding.

Pictorial representation

The iconic stage - a child has sufficiently understood the hands-on experiences performed and can now relate them to representations, such as a diagram or picture of the problem.

Abstract representation

The symbolic stage - a child is now capable of representing problems by using mathematical notation, for example: $12 \div 2 = 6$.

Reinforcement is achieved by going back and forth between these representations.