

Calculation Policy

Vision Statement

All pupils will have a deep understanding of calculation by the time they leave our schools, with an ability to use a range of strategies for working with number and be able to transfer those skills when problem solving. We will collaboratively work together to enhance the learning of calculation.

Aims of the policy:

- ✓ To ensure that a range of calculation strategies are learnt in our schools.
- ✓ To ensure that all four operations are taught effectively and with equal importance and children gain firm knowledge of the relationships between operations.
- ✓ To ensure that children can use their knowledge of operations to solve a range of problems.
- ✓ To ensure consistency of learning in calculation across the school.

Teaching Calculation

The policy is written so that addition & subtraction, and multiplication & division appear on the same page. These operations should be taught together, and every opportunity should be taken to develop children's understanding of the inverse relationships. Addition and subtraction, for example, should be taught alongside one another and the inverse relationships should be taught from Reception upwards where possible. To assist in developing this understanding, examples of missing number problems are shown on the policy. Staff should try and develop children's understanding of these aspects of calculation to ensure depth of understanding.

The four operations have been broken down into 10 general stages of understanding, stage 1 being children' early understanding and stage 10 being the most advanced. Children should be taught each of the four operations at a stage suitable to their understanding, and they should only advance to the next stage when they show genuine and independent understanding. In any given class, children will be working at a variety of stages, and teachers and other staff should plan according to these stages.

Some children will be taught other methods at home or in previous school settings. If a child understands these strategies then they should not be discouraged from using

them. However, the new national curriculum does insist on formal methods of calculation being taught to children as they progress.

On average, children should aim to be at the following stages in different year groups:

Foundation Stage: Stages 1 and 2

Key Stage 1: Stages 3 – 5

Lower Key Stage 2: Stages 5 – 7

Upper Key Stage 2: Stages 8 – 10

However, teachers should use their professional judgement when teaching different calculation strategies and move children on when they are ready. Similarly, they should not rush children onto new stages when they are not ready.

Resources

There are a number of resources that can support children in their learning of calculation **at any stage**. These are available throughout the school, but speak to the Maths subject leaders if any more of these are required. Some of these resources include (but are not limited to) the following:

[Multilink cubes](#): Stages 1 – 10

[Dienes blocks](#): Stages 5 – 10

[Counting equipment](#) (such as bears, animals, counters etc): Stages 1 – 10

[Place Value Straws](#): Stages 5 - 10

Vocabulary

When teaching calculation, teaching staff must model correct mathematical vocabulary at all times. Children should also be encouraged to use correct vocabulary working walls and displays should prominently feature mathematical vocabulary.

Monitoring of Calculation

The subject leaders and the SLT may undertake monitoring of calculation. This might involve ensuring that children are being taught at a suitable stage of the calculation policy and work scrutiny to ensure application of this policy, progression through the year groups, and consistency between classes in the same Key Stage.

Date of Policy: April 2014

Date for Review:

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