Intent

The National Curriculum for Maths aims to ensure that all children:

- Become fluent in the fundamentals of mathematics
- Are able to reason mathematically
- Can solve problems by applying their mathematics

At Newbold Verdon, these skills are embedded within maths lessons and developed consistently over time. We believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts through manageable steps. Children will spend time becoming true masters of content, applying and being creative with new knowledge in a variety of ways. We are committed to ensuring that children are able to recognise the importance of maths in the wider world. We want all children to enjoy mathematics and to experience success in the subject. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of mathematics.

Implementation

Teachers' planning and organisation

At Newbold Verdon, we have adopted the Rising Stars Mathematics Scheme to support our staff with the teaching and learning of mathematics. The programme provides planning, support and assessment materials for EYFS up to Year 6. As well as a whole school plan for the academic year, each year group is provided with a unit breakdown for each area of the maths curriculum. In addition to this, teachers also use additional teaching materials including The White Rose Mastery materials.

It is understood that, within a unit of work, the time spent on teaching a specific learning objective or set of learning objectives depends on the needs of the children in the class.

The structure of maths lessons may vary, depending on the nature of the topic and the activity planned. Where possible teachers preempt 'big' misconceptions that many children will have – e.g. a rectangle/oblong has four lines of symmetry (diagonals). Teachers also plan which vocabulary they will use and which models, images and concrete resources they will use to aid learning.

Effective plenaries and mini-plenaries are only part-planned as misconceptions only arise during the teaching of the lesson. However, all plenaries refer to the learning outcome and the success criteria in a meaningful way, allowing the children some time for self-assessment.

We ensure that across each term children are given a range of experiences in

mathematics lessons eg practical activities and mathematical games, group problem solving activities, individual, group and whole class discussion activities, open and closed tasks.

We ensure that children can use a range of methods to calculate and have the ability to check whether their chosen methods are appropriate, reliable and efficient. A detailed calculation policy is used throughout the school to ensure progression of number and calculation skills.

Concrete, Pictorial, Abstract (CPA) Approach

At Newbold Verdon, children learn mathematics through the 'concrete, pictorial, abstract' approach. Children will use physical objects, pictorial representations and abstract representations. Teachers model different ways of representing solutions to a problem in order to develop children's conceptual variation and reasoning skills. Children should be encouraged to move between these different stages (sometimes returning to concrete or pictorial) in order to fully understand a mathematical concept.

Impact

The school has a supportive ethos and our approaches support the children in developing their collaborative and independent skills. The Rising Stars Mathematics Scheme ensures that all children experience success and challenge. Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each child. These factors ensure that we are able to maintain high standards at the end of KS2 above the national average with a high proportion of children demonstrating greater depth.