



## **Nevill Road Junior School Mathematics Policy 2021**

### **Intent**

At Nevill Road Junior School we foster positive can do attitudes and we promote the fact that 'We can all do maths!' We have the same high expectations for all learners, including those with SEND in maths. The attached provision map shows what maths looks like for all learners at Nevill Road Junior School. We believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts through manageable steps. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems. At our school, the majority of children will be taught the content from their year group only. They will spend time becoming true masters of content, applying and being creative with new knowledge in multiple ways.

We aim for all pupils to:

- become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- be able to solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios
- reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately to be successful in mathematics.

### **Implementation**

A 'mastery' approach has been adapted and implemented at Nevill Road Junior School for the planning, delivery and engagement with mathematics. Review and feedback following the implementation of units as repeated blocks over the academic year, with little to no interlinking and relating of skills and knowledge, was highlighted as one of the main reasons for clear gaps in knowledge and one of the possible causes for slower progression.

We have therefore used the White Rose Maths Scheme of Work to timetable mathematical units that are explored progressively, drawing on resources, data and suggestions from reliable sources such as NCETM and [nrich.co.uk](http://nrich.co.uk) to link mathematical talk and knowledge across the various units (e.g. multiplication and area).

When planning for objective coverage, teachers are expected to take the following mastery strategies into account:

- Small steps
- Ping pong style of delivery
- Implementing the Concrete, Pictorial and Abstract (CPA) approach to introducing, exploring and applying mathematical concepts
- Considering key questions and mathematical vocabulary at the point of unit planning
- Considering use of sentence stems for fluency and reasoning within every lesson
- Multiple opportunities for verbal and written/drawn reasoning (explaining and using mathematical vocabulary to explain methods or reasoning) within unit exploration

- Inclusion of relevant problem-solving opportunities, where children are expected to draw on and apply multiple concepts to address or approach a challenge
- Modelling of all skills and approaches
- Modelling and sharing of efficient and accurate application of methods
- Opportunities to explore maths concepts/objectives at 'greater depth'
- Include all learners, providing relevant support for those with additional needs (educational, medical or otherwise)

## **Impact**

### **OUTCOMES**

At the end of each year we expect the children to have achieved Age Related Expectations (ARE) for their year group. Some children will have progressed further and achieved greater depth (GD). Children who have gaps in their knowledge receive appropriate support and intervention

### **MASTERY**

All children secure long-term, deep and adaptable understanding of maths which they can apply in different contexts.

### **EVIDENCE IN KNOWLEDGE**

Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential.

Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times table.

### **EVIDENCE IN SKILLS**

Pupils use acquired vocabulary in maths lessons. They have the skills to use methods independently and show resilience when tackling problems.

The flexibility and fluidity to move between different contexts and representations of maths.

Children show a high level of pride in the presentation and understanding of the work.

The chance to develop the ability to recognise relationships and make connections in maths lessons.