



# Mathematics Curriculum

Everyone Learning Together

*The Newfield Way*

## Intent

At Newfield Primary School, the mathematics curriculum is designed to nurture ambition in our children to achieve the very best that they can from their own starting points. We deliver a maths curriculum which prepares our children for their next step in their education. To do this, we give them opportunities to develop fluency with the basics (arithmetic, times tables and mathematical concepts), reason mathematically and solve problems. We also intend to give each child the self-confidence and resilience to reach their full potential and to develop a sense of enjoyment and curiosity about the subject.

We want our pupils who grasp concepts rapidly to be challenged through being offered rich and sophisticated problems before any acceleration through new content. Pupils who are not sufficiently fluent with earlier material will consolidate their understanding before moving on. Over time pupils will be given the opportunity to revise and rehearse key concepts and mathematical themes, deepening their learning through review and extension opportunities as they progress through the school.

At Newfield we believe that mathematical talk is essential for pupils to present mathematical justifications, arguments or proof. Pupils will build secure foundations in mathematics by developing their mathematical vocabulary and using it in discussions to deepen their knowledge and understanding and remedy their misconceptions.

Pupils will also apply their mathematical knowledge to science and other subjects where opportunities arise.

At Newfield Primary School we know that, within the context of SEND, personalisation of the curriculum is key so that each individual's priorities can be considered in order to prepare them adequately for adulthood with the best possible quality of life. Our ambitious curriculum can be successfully adapted to meet the needs of pupils with SEND, developing their knowledge, skills and abilities to apply what they know with increasing fluency and independence. We believe that it is vital that our pupils are equipped with the tools needed to become independent, inquisitive learners in all subjects and that pupils with SEND achieve the very best outcome and reach their full potential.



## **Implementation**

We use a variety of programmes and resources to support learning, including White Rose, Times Tables Rockstars and Numbershark.

As a school we adopt the Concrete, Pictorial, Abstract approach (CPA) and this begins in EYFS.

### **EYFS Mathematics Development**

We have designed an overview using the Statutory Framework for the Early Years Foundation Stage to ensure we are meeting all the requirements for mathematics. We plan for daily teacher led maths focus sessions, whereby each child has an opportunity to be involved and explore mathematical concepts.

### **KS1 and KS2 Mathematics Development**

We have designed an overview using the National Curriculum 2014 (NC) to ensure we are meeting all the requirements for mathematics. This overview details the topics to be taught in each year group for each half term.

Half term planning provides the NC objectives to be covered as well as the prior and future objectives for the topic, and the related mathematical vocabulary.

### **The Teaching of Calculations**

At Newfield we have a clear calculation policy which is intended to demonstrate how we teach different forms of calculation. It is organised into how we teach addition, subtraction, multiplication and division through developmental stages in maths. It follows a concrete, pictorial, abstract (CPA) approach and helps children to develop a deep and sustainable understanding of maths.

### **Lesson Sequence**

Each year group have a set of half term plans which stem from the whole school overview and detail the mathematical objectives that they will teach. Teachers will teach and model to the children the learning for the day. In lessons, differentiated directed tasks are offered for pupils to choose the learning that they think is most appropriate for their current level of understanding. The tasks are progressively more demanding. We also generally use a peel off model when children who are confident with an objective can start their independent learning quicker.

### **Presentation**

In Maths pupils are expected to write one digit per square in their books. All diagrams, tables and drawing should be written in pencil. Pupils from Year 2 onwards will be expected to draw a 2 square margin in their maths books to help them organise their learning. Pupils are expected to form their numbers accurately and correctly. They are also expected to present maths explanations neatly. The date should be written in the format dd.mm.yyyy, with all leading zeros included.

### **Spelling**

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.



### **Marking and Feedback**

Feedback and marking should be completed, where possible, within the lesson. All marking and feedback is given in line with our marking and feedback policy.

### **Summative Assessment**

Summative assessments will be entered into Sonar Tracker each term. Teachers will use their professional judgement to determine whether a child is working within age-related expectations, above or below. They will base their judgements on the information in pupils' book, any tests they may have taken and what they know about the child. Teachers will refer to the Teacher Assessment Frameworks (TAFs) in Y2 and Y6 and Sonar Tracker statements as a support for making judgements and to inform planning.

### **Environment**

The classroom learning environment for mathematics is based on the 'working wall approach' where teachers' modelling and prompts are displayed as part of on-going learning in each classroom. All working walls should include the following although the list is not exhaustive:

- Number line (at least 0 -100 up to year 3, at least -20 -100 Year 4+)
- Bonds of 10 and 20 year 1 and 2
- Relevant times tables year 2 to year 6
- Topic titles
- Current topic's vocabulary
- Examples of current key learning points

### **Intended Impact**

- The percentage of pupils working at age related expectations within each year group will be closer to/or at least in line with national averages.
- The percentage of pupils working at Greater Depth within each year group will be closer to/or at least in line with national averages.
- There will be no significant gaps in the progress of different groups of pupils (e.g. disadvantaged vs non-disadvantaged)
- Pupils enjoy maths.
- Pupils are fluent in counting and recalling number and times table facts.
- Pupils are able to reason with confidence.
- Pupils can use mathematical terminology and vocabulary with increased accuracy.
- Pupils can use mental and written strategies with increasing efficiency.
- Pupils can apply their number skills to solve problems, showing resilience when tackling these.
- Pupils can make connections between their learning within mathematics and with other subjects.
- Books show progression and deepening of learning.