



# Norwich Road Academy

## Maths Policy

Date of policy	February 2024
Member of staff responsible	E. Hilder
Review Date	February 2026

# **Maths at Norwich Road Academy**

## **Intent**

At Norwich Road Academy we aim to foster a 'can do' attitude towards Maths. If we feel we can't do it, the sentence is always followed with YET! "I can't do it yet!" This makes us believe we will be able to do it, we just haven't quite learnt all the skills we need to solve the problem. This positive mind-set towards Maths helps us all to achieve more than we believe we can.

Our school values:

## **Be Proud - Empower – Motivate – Aspire – Connect – Transform**

They are an integral part of every subject, including Maths, and are central to the Academy vision. Each value has its own place and can be linked to the Maths curriculum, encouraging children to strive to do their best, build on their learning and leave the academy as confident young people.

At Norwich Road Academy we intend to provide a high-quality Maths curriculum that is both challenging and enjoyable. The curriculum will be accessible to all and will maximise the development of every child's ability and academic achievement. We want pupils to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems, including using Maths in other areas of the curriculum. Pupils will be exposed to, and use, mathematical vocabulary at all stages of learning in order to embed their understanding. Throughout their mathematical journey, children will have access to resources in order to secure mathematical concepts through the use of concrete – pictorial – abstract methods. As they leave Norwich Road Academy, we aim for pupils to have the mathematical foundations that will enable them to become successful adults in the community and wider society.

## **Aims and Objectives**

Our aim is to ensure that all children:

- Become FLUENT
- REASON and EXPLAIN mathematically
- Can SOLVE PROBLEMS

Children need to be regularly exposed to increasingly complex problems to solve, which allow them to apply their Maths knowledge. In doing so, they are encouraged to develop an argument and line of enquiry which they can prove and justify using mathematical vocabulary. This includes the ability to break down problems, into a series of steps.

## **Implementation**

At Norwich Road Academy we teach Maths using a mastery approach. All pupils should have the opportunity to build competency by using the CPA (concrete-pictorial-abstract) approach. Pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols. Teachers follow the long term plan to ensure progression in skills. Vocabulary is taught through stem sentences and are used to scaffold children's reasoning.

### **At Norwich Road Academy we teach Maths in a way that:**

- encourages children to use mathematical vocabulary to reason and explain.
- develops mental strategies
- makes links between the concrete, pictorial and abstract
- is engaging for pupils of all abilities
- allows time for talk in order to stimulate and develop a curiosity for Maths
- builds on prior knowledge
- challenges children to stretch themselves
- allows children to secure their understanding of number and number relationships
- delivers the guidance in the National Curriculum

The learning environment will be positive and include a range of supportive systems for the children, including: a Maths working wall, current vocabulary, a range of age appropriate manipulatives and representations. Displays may include modelled examples from the teacher as well as examples of pupils' work. Pupils will be exposed to calculations and problem solving opportunities around the school, in lessons, displays or via verbal interaction with all staff. Teachers will use effective questioning in order to investigate deeper learning as well as to address misconceptions. The Calculation Policy details the methods to be used to support calculations throughout the school.

### **SEND and Inclusion**

At Norwich Road Academy, we endeavour to meet the needs of all children, taking into account gender, ethnicity, culture, religion, language and disability. The provision for children with Special Educational Needs and Disabilities is detailed in the SEND Policy. Children with SEND are supported through additional or adapted resources, differentiated learning tasks, targeted adult support and interventions. Some children may need additional time or careful scaffolding to understand or complete a task.

## Impact

Planning will enable pupils to make the appropriate progress over time. Clear assessment procedures will help to identify gaps in knowledge and understanding, allowing for teachers to plan for intervention.

All pupils will be secure with the fundamental aspects of mathematics, ensuring they are able to function independently as they continue their journey through education.

## Planning and assessment

The school uses the National Curriculum, our knowledge curriculum guidance and White Rose resources to plan the Maths curriculum. The long term plan sets out areas of Maths to be covered by each year group.

Teachers use the guidance to formulate medium term plans.

Teachers plan and deliver lessons that suit the needs of all children in their classes. They use their professional judgement and assessment information to ensure a flexible approach is adopted. Children are given the opportunity to engage in fluency, reasoning and problem solving activities throughout the week. Although White Rose resources are available to teachers to support their planning, they also have access to multiple online resources including Times Table Rock Stars, NCETM and those available through PiXL,

At Norwich Road Academy we use a variety of assessment systems to support our teacher assessment. These include: PIXL, Pupil Asset, Development Matters and our own end of unit assessments, referred to as 'Hot Tasks'. Resources from Test Base are used in school made 'Hot Tasks' at the end of a unit of teaching as they provide a realistic example of questions expected in an end of key stage assessment whilst also being year group appropriate.

Times tables knowledge will also be assessed and tracked through the use of Times Tables Rock Stars. These tests will *support*, **not** replace, teacher assessment. Formative assessment is used to guide teaching focus; summative assessment is used to track progress and attainment over time.

The Maths lead at Norwich Road Academy will monitor and moderate teacher judgements at regular intervals throughout the year to ensure consistency in standards and age-appropriate expectations.

Children are provided with feedback in line with the school's feedback policy to give children the best opportunities to progress their learning.

## **Parents**

It is important the parents and carers are actively involved in the children's learning. Pupils are given a weekly Maths task as part of their home learning. Teachers use the Class Dojo system to inform parents of classroom learning. Parents are informed of their child's progress in Maths during parent-teacher meetings and regular conversations. If a child requires further support with their Maths, resources are available to take home. An annual meeting is held for parents with children in Year 3 and Year 4 to inform them about the multiplication tables check that takes place in the summer term of Year 4 and gives further information about how parents can help their child to secure their times table fluency.

## **Subject Leader**

Subject Leaders at Norwich Road Academy will:

- Prepare and review subject policy and curriculum plans
- Promote the study of the subject throughout the academy
- Advise and support staff in the planning, delivery and assessment of design and technology;
- Monitor and evaluate the standards of children's work and the quality of teaching in design and technology throughout the school;
- Attend appropriate CPD and stay informed regarding developments within their subject
- Provide and evaluate learning resources
- Provide training and CPD to staff on the subject curriculum and its delivery, and keep them informed about subject developments nationally
- Assess the impact of the subject curriculum on pupil's learning and development

## **Monitoring and review**

This policy will be reviewed by staff and governors at least every 2 years.