Newton Leys Primary School and Nursery

Subject Overview – Maths

Intent

At Newton Leys Primary School and Nursery, we recognise that mathematics provides vital skills for everyday life and that it impacts upon pupils' opportunities to succeed in following their chosen paths. With its particular relevance to the nurturing of logical and methodical thinking, maths is at the heart of our pupils' intellectual development. We also believe that the study of mathematics can inspire a sense of wonder and curiosity towards the world. Our belief in the importance of maths means that we are committed to providing a high quality maths education for all Newton Leys pupils..

Our challenging, exciting and appropriate maths curriculum aims to develop all pupils' confidence and resilience, ensuring that they are fluent in number skills and have conceptual understanding in key areas of the subject. We place a high importance on ensuring that children are able to employ their mathematical knowledge to reason and solve problems in a range of contexts, both within maths lessons and in other areas of the curriculum. We believe that children derive confidence through the experience of success, and therefore strive to provide positive experiences that promote self-belief, growth mindset and favourable attitudes towards maths.

Our vision is for Newton Leys pupils to earn a reputation beyond the school as highly competent and enthusiastic mathematicians.

Implementation

The school embraces a mastery model for maths teaching. Maths lessons are taught daily throughout the school, with pupils learning in whole class, mixed ability groups. Teachers assess within the lesson and respond rapidly to address any misconceptions.

The White Rose Maths scheme provides the core strategy for delivering the curriculum. This resource provides a structure within which pupils master small, cumulative steps that build a solid foundation of mathematical understanding. Common lesson structures support a consistent approach throughout the school. Teachers use assessment and professional judgment to modify and supplement White Rose Maths materials. The school has also responded to the needs of pupils whose education has been affected by the Covid-19 pandemic by prioritising areas of the curriculum, drawing on trusted materials for this purpose.

Learning intentions and success criteria are shared with pupils at appropriate points within each lesson, and pupils are expected to reflect on their own progress. Concrete, pictorial and abstract representations are embedded within teaching, with the emphasis moving towards the abstract as pupils mature and develop. The NCETM Mastering Number project is used to support the early development of number skills among younger pupils (YR – Y2).

Fluency lessons are also timetabled, allowing pupils to rehearse and develop key knowledge, such as multiplication facts (tables) that support their learning across the maths curriculum. Key Instant Recall Facts sheets (KIRFs) are sent home for practice every half-term. The associated learning is reinforced and assessed during lessons. Teachers use a range of resources, including Numbots (mainly KS1) and TT Rockstars (mainly KS2) to support fluency.

In addition to continuous assessment at the point of learning, regular formal assessments are undertaken throughout the year to track pupils' progress. The Target Tracker program enables the school to monitor this progress, which is discussed in Pupil Progress Meetings.

The maths lead participates in meetings of the local NCETM group and shares pedagogical principles with teaching staff.

Impact

As a result of our teaching of maths, pupils will make good progress in developing fluency. They will acquire the skills to reasons mathematically and be able to apply maths to solve problems. At the end of each academic year they will be ready to develop their knowledge and understanding within the next year group. Having completed their primary education, they will be equipped to further their studies at secondary school.

Our use of a mastery approach enables all pupils to learn at a brisk pace. Rapid intervention is used to address misconceptions and ensure that all pupils acquire essential skills. Ample opportunity is provided for pupils to learn at greater depth when ready.

A stimulating, challenging yet supportive learning environment will enable pupils to enjoy their learning and develop positive attitudes towards maths.

The success of our strategy for teaching maths is reflected in the results secured in national tests. We are also confident in the ability of our pupils to articulate their mathematical ideas in ways that reflect positively on their experience of the subject. Their mathematical thinking will be characterised by a capacity for making connections between different areas of learning. Their attitudes will convey pride in their efforts and achievements and confidence in their ability.