



Mathematics

Intent

At Newcroft Primary Academy, mathematics is viewed as an important skill. It is essential for everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. Mathematics is therefore vital for the life opportunities of our children. Our vision is to ensure that our pupils become fluent in the fundamentals of mathematics; are able to reason and problem solve by applying their mathematics to a variety of increasingly complex problems; and they develop their resilience to reason and problem solve with increased confidence and accuracy. We strive to ensure that our children are curious mathematicians who ask questions, make rich mathematical connections, and who ultimately enjoy their mathematics lessons. Within mathematics, we support our children in developing many transferrable skills including resilience, determination, curiosity, perseverance and independence.

The National Curriculum objectives form the starting point to our planning for mathematics teaching. Lessons are coherently planned to sequentially build upon children's prior knowledge and opportunities are provided to regularly revisit areas of the mathematics curriculum to support children in transferring these skills and their mathematical knowledge to their long term memory. Securing progression for all children, whilst not putting a ceiling what children can access and achieve, are fundamental aspects of how we teach mathematics at Newcroft.



What?

Impact

Regular opportunities for children to become fluent in the fundamentals of mathematics (through arithmetic starters to lessons; regular Strawberry Jam, Lemon Curd and Chocolate Spread mental maths sessions; and regular Times Table Rockstars and Numbots practice).

Children have plenty of time and opportunities to practise and develop their fluency skills for Maths. This enables them to not only develop their knowledge, but also their speed of recall. Pupils will be able to recall and apply their knowledge rapidly and accurately to enable them to more confidently solve problems and reason about other areas of mathematics.

Children develop their reasoning skills and ability to use mathematical vocabulary in explanations of their thinking. The use of the APE structure (Answer it, Prove it, Explain it) supports children in structuring their responses to reasoning questions.

Children can confidently use mathematical vocabulary to explain their mathematical thinking and mathematical ideas. They can reason about their responses to particular problems posed in detail and with confidence.

Opportunities for problem solving are provided within each lesson. Pre-teaching sessions enable fluency skills to be recapped, enabling all children the opportunity to access higher level problem solving within the main mathematics lesson.

All children are exposed to a range of mathematical problems each lesson. All children are given a regular opportunity to develop their problem solving skills. Children approach mathematical problems with increasing sophistication and perseverance to seek solutions.