



The Maths Curriculum

Vision

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. As a school we will provide a high-quality mathematics education that provides the children with a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. Through a maths mastery curriculum, fully implementing a CPA approach and providing regular opportunities to allow for fluency, all children will develop the necessary deep understanding to achieve success in this subject.

The Maths Curriculum will include the following features:

- High expectations for every child
- Greater depth within topics
- Number sense and place value come first
- Focus on mathematical thinking and language
- Resources to support a deeper understanding
- Problem solving is central
- Maths talk
- Calculate with confidence– understand why it works
- Regular revision of previously learnt concepts
- Opportunities to develop fluency

Intent

It is our intent at Carrington Junior School to provide all of our children with a high-quality education in Maths. Our maths mastery curriculum has been developed to ensure every child can achieve excellence in mathematics. Children can experience a sense of achievement as they solve mathematical problems, discover different solutions to solving problems and make links between different areas of mathematics. Pupils will develop a deep understanding of the subject through a concrete, pictorial and abstract approach. This ensures pupils fully understand what they are learning.

Implementation

We teach Maths on a daily basis throughout KS2. The core maths lessons are backed up by

fluency sessions taught 3 times a week, including regular teaching and practice of the times tables. Maths is taught in a whole-class setting, using the Power Maths scheme of work. Some classes (currently Year 3 and Year 6) are being taught maths in smaller class numbers - additional teachers are used to make this possible. The intention is to provide smaller class sizes to the year groups where accelerated progress is needed.

The lesson sequence is designed to empower children to understand core concepts and grow in confidence, using a mastery CPA approach. The children move forward together through the lessons.

Each lesson begins with a practical, real-life problem. This arouses curiosity and promotes maths talk in pairs or small groups. The next part of the lesson is teacher led and focuses on the varieties of methods that can be used to solve a single problem. Children are expected to work in pairs and are given the opportunity to explain their reasoning and methods that they have used. The children then have the opportunity to practise the methods and are encouraged to work more independently. The questions in the practice section get increasingly more difficult, leading to a challenge question, where the higher attaining children are expected to attempt to answer.

Each lesson, children build on the knowledge and skills that they have already learnt in previous lessons, until they have developed a deep understanding of each mathematical concept.

Impact

Our maths curriculum will ensure all pupils develop the key learning skills set out by the national curriculum, as well as a love of the subject.

These are as follows:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

We measure the impact of our curriculum through the following methods:

Observing children working mathematically in lessons.

Marking of work in maths journals and Power Maths work books.

Formal termly assessment (PIXL)

Interviewing the pupils about their learning (pupil voice).

Learning walks.

Subject tracking and monitoring

Annual reporting of standards across the curriculum to parents

The Maths subject lead will continually monitor the impact Maths teaching is having on the children's learning, through planning scrutiny, book scrutiny, learning walks and pupil interviews. Impact will also be measured through termly summative assessments.

Resources

National Curriculum for Maths

CJS Maths Long-Term Plan (based on Power Maths LTP)

Power Maths curriculum and resources

Power Maths training videos