Reynolds Academy Subject on a Page

Maths

Mathematics is essential to everyday life and teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems in a variety of contexts. At Reynolds Academy, we endeavour to develop each pupil individually and personally, to promote enthusiasm, confidence and a love of mathematics itself, and to provide children of all ages with a foundation for understanding the world through the delivery of a high-quality mathematics education.

In EYFS maths is taught daily and through continuous provision.
Children from Year 1 to Year 6 have a one-hour maths lesson per day.

Intent – What do we aim to deliver?

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, identifying relationship, making generalisations and developing an argument, justification or proof using mathematical language.

Solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Implementation – How do we aim to deliver it?

Children throughout the academy are taught using the White Rose Mastery Maths Scheme of Learning. This scheme has number at its heart and a lot of time is spent reinforcing number to build children's competency within the subject. Mathematical topics are taught in blocks and these teaching blocks are broken down into smaller, more manageable steps. The scheme also provides opportunities to build reasoning and problem-solving into each lesson.

Teaching children using the mastery approach incorporates using concrete objects and manipulatives to help our children understand what they are doing. Alongside this, children are encouraged to use pictorial representations; these representations can then be used to help reason and solve problems. Both concrete and pictorial representations scaffold our children's learning before moving them onto abstract methods.

Once a mathematical concept is covered, it is revisited throughout the year to encourage deep learning and to ensure our children have the foundational knowledge they need before moving on to more advanced maths concepts and tackling more challenging number problems.

To support children's mathematical language and to further develop their reasoning skills, we use stem sentences as a learning scaffold, and key vocabulary is introduced and revisited regularly allowing everyone the opportunity to 'talk like a mathematician'.

All children in KS1 and KS2 have access to 'Times Table Rock Stars' which is a fun and challenging programme designed to help pupils master the times tables by improving their rapid recall skills.

Impact – How will we know when we have delivered it?

Children will be engaged and challenged within their learning and be confident to discuss maths. They will be resilient learners when faced with challenging mathematical problems.

Formative assessment within every lesson helps teachers to identify children who require additional support and those who are ready for greater stretch and challenge.

In Year 2 to Year 6, summative assessments are completed three times a year. These are analysed to identify areas of strength and to inform the next focus for teaching.

Children will retain the knowledge significant to mathematics and apply this to other areas of the curriculum such as: Design and Technology, Science and Computing.