



ST. ANDREW'S MATHEMATICS CURRICULUM

MATHEMATICS CURRICULUM INTENT

At St. Andrew's, we believe that every child can be successful in mathematics. We give all children the opportunity to shine as they learn to solve problems; develop ways of looking at patterns; discover efficient strategies and make links between the different areas of mathematics and the wider curriculum. Our teaching aims for all children to become confident and competent mathematicians who are able to apply their mathematical knowledge creatively and to a wide range of contexts. We want children to recognise that mathematics is not restricted to the classroom; it is present in every aspect of their lives. By following a mastery approach, our intention is that all children develop deep, conceptual understanding of the core areas of mathematics and develop their number sense, fluency, reasoning and problem solving. As a result, we have reduced the number of objectives covered in order to allow for depth of learning in key areas.

We aim for high levels of success in the classroom so that we can be sure that children have solid mathematical foundations for them to build upon as they progress as mathematicians into Key Stage 3 and beyond. At St. Andrew's we believe in making steps of learning small enough that all children can succeed, allowing the whole class to move through the mathematics at a similar pace. Where children have not mastered the steps in the learning sequence, we intervene quickly to ensure that they are ready for the next lesson, our intention being that children keep up rather than catch up.

The Mathematics Curriculum contributes to the St. Andrew's Core Values:

Compassion: Solving problems is at the heart of mathematics, and we aim to make children observant to problems around them, and skilled, flexible thinkers in order to come up with solutions.

Achieve: All children can achieve through a mastery curriculum, and make excellent progress.

Respect: Children's ideas, solutions and views are valued, respectfully challenged and built upon.

Enjoy: Problem solving, mental flexibility and imagination in coming up with creative solutions to problems are hugely enjoyable.

CURRICULUM CONTENT & DELIVERY

First and foremost, we focus on effective, high-quality teaching for all. At St. Andrew's mathematics is taught through the small-stepped units of work taken from the National Centre for Excellence in Teaching Mathematics (NCETM) Prioritisation Curriculum. The vast majority of children will be taught age related content and will be supported in their understanding of this through same day interventions (Maths Meetings). Progress is tracked against the small steps for each daily lesson and unit of work, using assessment materials from the NCETM. The units are mapped across the year to ensure coverage of core areas, with emphasis on the 'Ready to Progress' key objectives of mathematics across each year group and the key stage.

Mathematics is taught daily in the morning, with a 'Maths Meeting' at least three times a week in the afternoons. This Maths Meeting is used to deliver fluency teaching in mathematics facts (see separate policy) and same day interventions, as well as address misconceptions from the daily lesson. Children who are confident use this time to develop their fluency, revisit another area of mathematics or apply their knowledge to problems. We encourage all children to demonstrate their understanding of concepts through use of different manipulatives and working practically. Our chosen curriculum uses carefully selected representations and guides children from concrete to pictorial and then abstract understanding.

Opportunities for developing skills in problem-solving, collaborative working and oracy are built into daily maths lessons as well as specific open-ended problem-solving sessions in each unit of work, from NRich. Stem sentences and precise mathematical vocabulary are identified for each unit of work and interwoven into lessons, which supports children's conceptual understanding and explanation. These are displayed in the classroom on working walls.

EQUALITY FOR ALL

A small minority of children find it difficult to make progress in Mathematics within the whole class environment and are working at a significantly lower level than the rest of the year group. These children are grouped and have separate maths input, still taught with mastery approaches in mind and using the NCETM materials. Because of the way our curriculum is designed, there are opportunities for all children to look deeply into the detail and rigour of the mathematics they are learning. For those who grasp concepts quickly, we encourage them to 'Dive Deeper'. This challenge is open to all children. There are posters in each classroom which explain how children can demonstrate deeper thinking about their learning in their work by drawing, explaining, telling a maths story, proving and explaining misconceptions. There is also opportunity to deepen learning within each lesson, with dive deeper questions so that the mathematics is explored more deeply and in different ways.

CURRICULUM ENRICHMENT

All children can attend maths club and we also run Maths Experience days. All units of work have an NRich investigative lesson incorporated into the main learning, in order to allow children to demonstrate their problem solving skills in a slightly different way.

MATHEMATICS CURRICULUM IMPACT

We ensure that children at St. Andrew's are equipped with the mathematical skills and knowledge that will enable them to be ready for the curriculum at Key Stage 3 and for life as an adult in the wider world. Children review the agreed objectives at the end of every session and are actively encouraged to identify their own target areas, with support from their teachers. Formative assessment happens in every lesson and teachers use live marking to provide immediate feedback and move on the pupil's learning in the lesson.

Those who need extra input have this on the same day as an intervention during the Maths Meeting. These are recorded in Maths books to best facilitate monitoring of individual students. Teachers use assessment questions to check progress throughout units of work. Termly, summative NFER assessments are used to track pupil progress against year group expectations and identify gaps in knowledge to inform planning. Teachers move through the unit of work at the pace that the children need, and will adjust the time spent on objectives in response to this.