



Every Child A Champion In Their Own Right

Matthew 5.16 – 'Let Your Light Shine'

Mathematics: Curriculum Intent, Implementation and Impact Statement

Intent

The intent of our mathematics curriculum is to provide children with a foundation for understanding number, reasoning, thinking logically and problem solving with resilience so that they are fully prepared for the future. It is essential that these keystones of Mathematics are embedded throughout all strands of the National Curriculum.

By adopting a Mastery approach, it is also intended that all children, regardless of their starting point, will maximise their academic achievement and leave St Andrew's with an appreciation and enthusiasm for Maths, resulting in a lifelong positive relationship with number.

-We ensure that we deliver a high quality maths curriculum that is both challenging and enjoyable.

- We want children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

- We intend for our pupils to be able to apply their mathematical knowledge to all other subjects.

- We want them to know that maths is essential to everyday life and that our children are confident mathematicians who are not afraid to take risks.

- Fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.

Implementation

Planning: Lessons are planned and sequenced so that new knowledge and skills build on what has been taught before. Teachers follow the White Rose Maths Hub materials. Staff also refer to the Calculation Policy when teaching formal methods, understanding that sometimes children find their own efficient methods along the way. Each week a Times Tables focus is planned to give children the opportunity to practise and improve their rapid recall skills with facts 12x12. Children enjoy the weekly challenge and strive to improve their time and score each week. All children also have access to their own personal account of 'Times Tables Rockstar' where they can compete against other pupils and classes in school.

Teaching: At St Andrew's we employ a variety of teaching styles and opportunities for children to learn and develop their Mathematical skills and competencies, both individually and collaboratively. The main aim of all lessons is to develop children's knowledge, understanding and skills, applying these to a variety of contexts. One of the key elements in lessons throughout the school should be on developing the children's mental calculation strategies alongside developing the children's written calculation strategies as laid out in the Written Calculation Policies for addition, subtraction, multiplication and division. *See Calculation Policy*.

[Progression Maps for Key Stages 1 and 2 | NCETM](#) The progression maps are structured using the topic headings as they appear in the National Curriculum:

Number and Place Value

Addition and Subtraction

Multiplication and Division

Fractions (including decimals and percentages)

Ratio and Proportion

Measurement

Geometry - properties of shapes

Geometry - position and direction

Statistics

Algebra Our pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

Concrete – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

Pictorial – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

Abstract – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

Leadership, Assessment and Feedback

- Assessment informs the teaching and learning sequence, and children work on the objectives they are assessed as being at.

- Children who not making the required progress are given extra support through intervention sessions and support in class in order to meet our INTENT of developing pupils academically. - Feedback is given on children's learning in line with our feedback policy.

Formative assessment within every lesson (Using <https://app.otrack.co.uk/> to record) helps teachers to identify the children who need more support to achieve the intended outcome and who are ready for greater stretch and challenge through planned questioning or additional activities.

- In order to support teacher judgments, children are assessed using current and reliable tests in line with the national curriculum for maths (Regular 'Non Negotiable assessments to check on basic skills, Assertive Mentoring tests half termly as well as White Rose Maths assessments termly for arithmetic and reasoning & Problem Solving).

- Analysis of any tests that the children complete is undertaken and fed into future planning. Summative assessments are completed at the end of every half term and at the academic year and help influence the overall judgement reported to parents in the end of year report.

- The maths leader has a clear role and overall responsibility for the progress of all children in maths throughout school. Working with SLT, key data is analysed and regular feedback is provided and discussed at pupil progress meetings to inform on progress and future actions

In order for this to happen, the Mathematics lead, the Headteacher and the Senior Leadership Team take responsibility for the monitoring of the Mathematics curriculum and the standards achieved by the children.

The Mathematics leader will monitor for appropriate pitch and progression at least once every half term. This monitoring takes the form of:

1. lesson observations and feedback;
2. learning walks and pupil voice conversations;
3. planning scrutiny followed by support where necessary;
4. book scrutinies on a frequent basis;
5. Half termly/ termly data analysis;
6. moderation within and between year groups to ensure each year group and teacher has the same high standards;
7. Communication with the Governing body through the Governor that is paired with the Maths Lead (at least monthly).

Data is collected half termly and reported to SLT. All teachers contribute to a termly Pupil Progress Meeting where the data is analysed and targets are made by highlighting 'stuck' pupils and focusing on next steps.

Impact

The impact of the Mathematics emphasis and teaching at St Andrew's:

A mathematical concept or skill has been mastered when a child can show it in multiple ways:

- using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.
- Children demonstrate quick recall of facts and procedures. This includes the recollection of the times tables.
- The flexibility and fluidity to move between different contexts and representations of mathematics.
- The ability to recognise relationships and make connections in mathematics.
- Children show confidence in Believing that they will achieve.
- Children show a high level of pride in the presentation and understanding of the work.

At St. Andrew's we expect that by the end of Y6 our children:

become fluent in the fundamentals of mathematics

reason mathematically by following a line of enquiry, conjecturing relationships and generalisations.

solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication.