



# St. Augustine's Catholic Primary School



## CURRICULUM POLICY DOCUMENT

Previous Policies : 2018  
Revised : January 2020  
Governors Approved:  
Next Review: January 2022

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## ***A POLICY FOR MATHEMATICS***

**Single Equality Entitlement.** This Policy should be read in conjunction with the **Single Equality Policy**. The general equality duty requires that, in the exercise of their functions, schools must have due regard to the need to eliminate unlawful discrimination, harassment, victimisation and other conduct prohibited by the Equality Act 2010. St. Augustine's endeavours to advance equality of opportunity and foster good relations for all.

### **Aims:**

Mathematics teaches children an awareness of the world around them through their ability to calculate, reason and solve problems. It enables children to understand relationships and patterns in both number and space in their everyday lives.

*At St Augustine's we aim to ensure that every pupil:*

1. Becomes fluent in the fundamentals of mathematics, including through varied and frequent practise with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
2. Can reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and develop an argument, justification or proof using mathematical language.
3. 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. (National Curriculum 2014)

Mathematics is an interconnected subject in which pupils need to move fluently between mathematical concepts and representations of ideas. At St Augustine's we aim to provide as many opportunities for developing these skills as possible through our mastery curriculum and concrete, pictorial and abstract approaches. We also include children in the cycle of their learning through regular pupil-teacher discussions to correct any misconceptions and identify next steps in their learning.

### **Teaching and learning style:**

Our principal aim is to ensure that every child has a deep understanding of:

- Number and place value
- The four number operations
- Fractions, decimals and percentages
- Geometry, measures and statistics.

The school uses a variety of teaching and learning styles in mathematics, incorporating a concrete, pictorial and abstract (CPA) approach to introducing, exploring and applying mathematical concepts. A wide range of resources are available across the school to ensure competency and we encourage that all new concepts are explored with manipulatives. We then aim to ensure that every child can apply their skills to problem-solving contexts. This provides a suitable environment for cross-curricular learning and an understanding of the role of mathematics in the world around them.

### **Planning:**

Mathematics is a core subject within the National Curriculum. We draw on high quality and reliable sources such as White Rose, NCETM and [nrich.co.uk](http://nrich.co.uk).

Lessons include:

- A consolidation starter - based on the previous half terms objectives.
- A reasoning and fluency task - an opportunity for verbal and written/drawn reasoning, and to use mathematical vocabulary to explain methods.
- Differentiated tasks - to include all learners and provide support for those with additional needs - SEND, PP, EAL and G&T children.
- Challenges - an opportunity for children to make links, relate their skills and knowledge to explore concepts at greater depth.
- A plenary - to focus on next steps and address misconceptions.

By the end of each year we ensure that every child has achieved a set of core skills commensurate with their year group mathematics objectives. Our long term planning outlines the objectives that will be targeted across the academic year. Our medium and short terms plans then facilitate appropriate learning opportunities which guarantee progress against the curriculum objectives. Within our daily planning we ensure a set of non-negotiable objectives that every child must achieve within the lesson. If these are not

met, the children will then receive same day/next day intervention in order to address misconceptions or conceptual understanding issues for them to access the next steps in their learning.

Within our planning we include inspiring and engaging activities that are matched to the needs of the individual learner through carefully considered differentiation.

The Foundation Stage In our Reception class we again teach mathematics daily, within a discrete session, which is underpinned by the Characteristics of Effective Learning within the Foundation Stage Curriculum. Ample opportunity is then provided for the children to develop their understanding of number, shape, pattern and space through play as well as activities that promote exploration, discussion and practical application.

### **Mathematics and inclusion:**

At St Augustine's we teach mathematics to all children, whatever their ability and individual needs. Through our mathematics teaching we provide learning opportunities that enable all pupils to make good progress against the curriculum objectives. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents and those learning English as an additional language (EAL). For further details see separate policies: Special Educational Needs; Equal Opportunities, Gifted and Talented; English as an Additional Language (EAL).

### **Assessment:**

Assessment in mathematics is viewed as part of the "assessment for learning" cycle. Learning objectives (or WAGBATs) and steps to success are shared with the children in every lesson. Marking then initiates a dialogue between the teacher and learner which identifies individualised targets and areas for improvement. Children are also provided with opportunities for self/peer-assessment and given time to review and improve their work from previous sessions.

Within every year group, progress against the objectives is monitored on a half-termly basis. These identify performance against age-related expectations and inform teachers if interventions and extension are required. In addition to this we use PUMA (Progress in Understanding Mathematics) assessment tests to track children's progress against their year group objectives.

At St Augustine's, multiplication tables and mental calculations skills are also monitored regularly. Times tables tests are conducted regularly and individualised tables and numbers bonds targets are tested and reviewed on a 1:1 basis each week. (KS2). Children are tested nationally in Year 4 but times table support continues through UKS2 where needed.

In addition there is national end of Key Stage testing in Year Two and Year Six to support the teacher assessments and confirm that good progress has been made within each Key Stage.

**Monitoring and review:**

The responsibility of the subject leader is to monitor standards of children's work and the quality of teaching in mathematics. Their work also includes supporting and informing colleagues regarding subject developments and providing a strategic lead and direction for mathematics in the school. Finally, the subject leader provides the headteacher with an annual summary evaluating strengths and weaknesses within the subject and indicating areas for further development.

Date: January 2020