



Loving minds ♥ hearts ♥ hands.

## MATHEMATICS POLICY 2022-2023

### Article 28

You have the right to education.

### Article 29

You have the right to education which tries to develop your personality and abilities as much as possible and encourages you to respect other people's rights and values and to respect the environment.

Approved  
by:

Date:

Last  
reviewed  
on:

Next review  
due by:

## Introduction

In light of the mission statement, the National curriculum, the SMSC policy and the assessment policy, the staff and governors at St. Ambrose have set down the following policy. This policy outlines what we are aiming to achieve in respect of pupils' mathematical education. It also describes our agreed approach to the planning, delivery and assessment of the mathematics curriculum. The mathematics taught and the methods used reflect the recommendations outlined in the guidance contained in the documents:

- A. Curriculum Guidance for the Foundation Stage
- B. Curriculum guidance for Teaching Mathematics from Year 1 to Year 6
- C. White Rose medium term planning.

## Curriculum Intent

*At St. Ambrose we have developed and grown our whole school curriculum (Building the Kingdom) into one that matters for our children. It is broad, balanced and fulfils all requirements, but goes much further than that. It is underpinned by BIG Questions to raise awareness and develop critical thinkers who become inspired to make a difference, build God's kingdom on earth and change the world! The intent of our curriculum is to grow advocates for change.*

At St. Ambrose, it is recognised and taught that Mathematics helps children to make sense of the world around them through developing their ability to calculate, to reason and to solve problems whilst expressing their reasoning fluently. It enables children to understand and appreciate relationships and patterns in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

At St. Ambrose Primary School, in conjunction with the National Curriculum, we aim to:

1. develop a positive attitude to maths as an interesting and attractive subject in which all children gain some success and pleasure;
2. develop mathematical understanding through systematic direct teaching of appropriate learning objectives;
3. encourage the effective use of maths as a tool in a wide range of activities within school and, subsequently, adult life;
4. develop an ability in the children to express themselves fluently, to talk about the subject with an assurance, using correct mathematical language and vocabulary (as detailed in the 'mathematical vocabulary');
5. develop an appreciation of relationships within maths;
6. develop ability to think clearly and logically with independence of thought and flexibility of mind;
7. Use manipulatives to aid the development and learning of the children in mathematics.
8. Use CPA (Concrete, Pictorial and Abstract) approach to developing mathematical skills.
9. develop an appreciation of creative aspects of maths and awareness of its aesthetic appeal;
10. develop mathematical skills and knowledge and quick recall of basic facts in line with NC recommendations

## **Curriculum Implementation**

*The curriculum is carefully planned, connected and implemented to ensure progression in knowledge, skills and understanding. The planning model we use is a collaborative approach where staff plan together with the SMT. High quality teaching is planned for and delivered to:*

- *Engage children in their learning and provide memorable first hand experiences.*
- *Develop local, national and global multi-cultural awareness.*
- *Provide effective enrichment opportunities to increase the cultural capital of our children.*
- *Use parental engagement activities to involve parents in their child's learning.*

The implementation of the maths curriculum at St. Ambrose can be split into the following areas:

- Mathematics Curriculum planning
- Teaching and Learning Style
- Differentiation
- Attainment targets
- Assessment
- Presentation

## **Mathematics Curriculum Planning**

Mathematics is a core subject in the National Curriculum, and we use the White Rose scheme of learning as the basis for implementing the statutory requirements of the programme of study for mathematics. Appropriate training and support will be offered to the class teachers to implement this style of mathematics successfully.

We carry out the curriculum planning in mathematics in line with the structures and recommendations outlined in the National Curriculum. Our weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught.

The head teacher, phase leaders and mathematics subject leader are responsible for monitoring the mathematics planning within our school.

Work undertaken within the Foundation Stage is guided by the requirements and recommendations set out in the Early Years Foundation Stage document. The techniques used from the CPA approach will be introduced into EYFS so that children will develop their understanding of mathematics and prepare them for KS1 maths. We give all the children ample opportunity to develop their understanding of mathematics. We aim to do this through varied activities that allow them to use, enjoy, explore, practise and talk confidently about mathematics.

## Teaching and Learning Style

The school follows the National Framework for mathematics. Links, where appropriate, are made to other subjects where possible. The school uses a variety of teaching styles to cater for the variety of learning styles of pupils in mathematics lessons. Our principle aim is to develop children's knowledge, skills, reasoning, fluency and understanding in mathematics. We do this through a daily lesson that has a high proportion of whole-class and group-direct teaching. During these lessons we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources such as number lines, number squares, numicon, and small apparatus to support their work. Counting is an integral part of the majority of lessons.

## Differentiation

In the revised national curriculum 2014 it is suggested that:

*Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.'*

In all classes there are children of differing mathematical ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies - in some lessons through differentiated group work and in other lessons by organising the children to work in pairs on open-ended problems or games. Children are given the opportunity in many lessons to decide how they feel about their learning, leading to a choice of differing challenges that are related to the intended learning.

We use teaching assistants to provide appropriate support to individuals or to groups of pupils. Teaching assistants within St. Ambrose Primary School are viewed as an important 'asset' to the school and, as such, are appropriately involved in the planning and delivery of the mathematics curriculum.

## Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. The school aims to provide opportunities for children to develop these skills but for those children who are exceeding the appropriate relevant programme of study they are not to move onto the next programme of study. They are to master their current one with an emphasis on depth and challenge rather than accelerating through the content.

## Assessment

The children's learning is assessed regularly through teacher observation, marking, use of classroom monitor and discussion with the children. In addition, White Rose Maths assessments are used at the beginning and the end of each topic and Whiterose maths assessments are used termly to support judgements. Tracking is completed on a termly basis. For the Foundation Stage, children are assessed in accordance with the Early Years

Foundation Stage tracking system.

### **Presentation.**

Children at Saint Ambrose are taught to take pride in their learning and that it is set out neatly. In maths, the date will be written as 10.9.22. A line will be missed and then the title will be written on this line. All dates and titles will be underlined with a pencil and a ruler in Key Stage 2 (this may be started in Key Stage 1 depending on the ability of the child).

A margin will be drawn and children will start writing from the margin. Children should use 1 square per digit when writing numbers or calculations.

New pieces of work will generally not be started on a new page each time.

Pencil must always be used in maths book.

Any colouring in must be done in crayon or pencil crayons, felt tips must not be used in exercise books.

Any mistakes will be crossed out with one straight line through the error.

Children are expected to keep their books neat and tidy. There will be no doodling on the front or inside covers.

### **Curriculum Impact**

*The impact of our curriculum can be seen and heard when you talk with our children about their experiences and the changes in our community and society they have affected. The high quality learning which is produced in their books which demonstrates the progress the children make from their starting points to their end points and this is celebrated through outstanding learning environments.*

In maths, we expect children to have a greater conceptual understanding of number and calculation and therefore have:

- Quick recall of facts and procedures
- The flexibility and fluidity to move between different contexts and representations of mathematics.
- The ability to recognise relationships and make connections in mathematics.
- The ability to show a mathematical concept or skill in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

Additional Related Policies

Calculation Policy

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Reviewed: September 2022 for academic year 2022 2023

Date agreed by Governors:

