



St. Ethelbert's RCP School **Mathematics Policy**

Love, Care, Share...

Love learning as friends;

Care for our community as neighbours;

Share our faith in Jesus as disciples.

Introduction

This policy outlines our curriculum intent 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 National Curriculum for Mathematics.

It provides information and guidance for teachers, governors and other interested parties.

Aims

The national curriculum for mathematics aims to ensure that all pupils:

- 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, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **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.

At St Ethelbert's R.C. Primary School, 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.

We are seeking to further improve our standard of Maths education by providing high quality textbooks, teaching resources and professional development.

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. encourage the effective use of maths as a tool in a wide range of activities within school and, subsequently, adult life.
3. develop an ability in the children to express themselves fluently, to talk about the subject confidently, using correct mathematical language and vocabulary.
4. develop an appreciation of relationships within maths.
5. develop ability to think clearly and logically with independence of thought and flexibility of mind.
6. use manipulatives to aid the development and learning of the children in mathematics.
7. use CPA (Concrete, Pictorial and Abstract) approach to developing mathematical skills.
8. develop an appreciation of creative aspects of maths and awareness of its aesthetic appeal.
9. develop mathematical skills and knowledge and quick recall of basic facts in line with National Curriculum recommendations.

Teaching and Learning Style

The school follows the National curriculum for mathematics. Links are made to other subjects where possible, or appropriate. The school uses a variety of teaching styles to cater for the 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 teaching which relies on precise and incisive questioning by teachers and resilient speculation, reflection and problem solving by children. During these lessons, we encourage children to ask as well as answer mathematical questions. One of these lessons per week, in Key Stage 2, is given over to the teaching of arithmetic and the administering of a short Arithmetic test and a times tables grid is completed each week.

In addition, in Key Stage 2, the children have an additional Big Maths lesson once a week. During this session, children are "set" according to their grasp of a year group's concepts, for example a Year 4 child who hasn't secured all the Year 3 objectives, would work on these objectives during this session. Also during this weekly session, the children complete a short Big Maths test. Children move between the groups as gaps in their understanding are filled, never moving beyond their own year group's objectives. (Those secure with their own year group's objectives, are given additional challenges to complete.)

Children have the opportunity to use a wide range of resources such as number lines, counters, number squares, Numicon, place value mats, digit cards, Base 10 apparatus, ICT, LBQ and measuring apparatus.

Remote Learning:

In the event of a bubble closure as a result of a positive Covid test or a full school closure as a result of a national lockdown, remote learning will be provided via the Seesaw platform. Wherever possible, remote education will align as closely as possible with our in-school provision, providing breadth, balance and progression.

In Maths, the following resources will be used to deliver the curriculum:

- White Rose Maths
- Oak Academy
- Twinkl
- Primary Stars
- Times Tables Rockstars
- BBC Bitesize

The following approaches may be utilised:

- Pre-recorded teaching input videos
- Written tasks, including Power Points; written explanations
- Zoom calls for live discussion / input
- Practical / creative activities

The school recognises that some adaptations may have to be made to address the additional challenges of children having to work at home. In Maths, units and resources will be tailored to meet the needs of learners.

(See also Remote Learning Policy)

In order to ensure children fill the gaps in their understanding, caused by absences from school due to lockdowns and periods of isolation, 3 extra Maths lesson a week have been undertaken from Years 1-6. In the Autumn term this focused on the White Rose Blocks that were missed during the March 2020 lockdown. In the summer term, the focus has moved to securing the Ready to Progress Criteria for Number.

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.'

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.

Mathematics Curriculum Planning

Mathematics is a core subject in the National Curriculum, and we use the White Rose teaching sequence and resources, as the basis for implementing the statutory requirements of the programme of study for mathematics. Where appropriate, this is supplemented by a variety of other resources including Abacus Maths, Target Maths, Primary Stars and LBQ.

We carry out the curriculum planning in mathematics in line with the structures and

recommendations outlined in the National Curriculum. Our plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught. They include key vocabulary to be taught and regular opportunities for reasoning and problem solving.

The head teacher and mathematics subject leader are responsible for monitoring the teaching and learning of Maths within our school.

Assessment

The children's learning is assessed daily through teacher observation, marking and discussion with the children. Weekly, additional data is gained in Key Stage 2 by the administration of an Arithmetic and a Big Maths test. In addition, White Rose End of Block and End of Term assessments are used to support judgements. In Year 2 and Year 6 practice SATs papers may also be used to support teacher assessment. Tracking is completed on a termly basis.

Maths and Inclusion

At St Ethelbert's R.C. Primary School, we teach Maths to all children, whatever their ability and individual need. Maths forms part of the curriculum policy to provide a broad and balanced education for all children. Maths interventions are carried out to ensure gaps in children's understanding are filled, this may take place as a pre-teach or following the lesson.

Additional Related Policies

Calculation Policy, Curriculum Policy, Child Protection Policy, Equality Policy, and Marking Policy.

Policy reviewed April 2021

The highlighted sections have not been applicable during the Covid-19 pandemic, due to the need to separate bubbles.