

St. Cuthbert's Catholic Primary School

Maths Policy

Overview

This policy (in conjunction with the Teaching and Learning policy) contributes to the school's philosophy of teaching and learning Mathematics.

The National Curriculum states that:

"Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject."

At St. Cuthbert's we believe that all pupils, regardless of ability, race or gender, should be encouraged and helped to realise their full potential in Maths. We want the children to see Mathematics as being relevant to their world and applicable to everyday life as well as being something that they will need as they move on through their school life and ultimately to the world of employment.

To that end, a high-quality, inter-related and creative Maths experience should be one that develops the children's ability to think mathematically and one which allows them to apply the tools to which they have been exposed in a variety of ways. We place a strong emphasis on teaching Mathematical skills and concepts in concrete and practical contexts. Teachers should use models and practical activities which enable the children to use and apply skills, knowledge and understanding. Teachers have access to Hamilton Trust medium term plans, White Rose, Twinkl and others for Mathematics and we also have a school calculation policy, ensuring we teach uniformly throughout the school.

Aims/Objectives

Aims/Objectives

Maths is a life skill. It is an essential element of communication, widely used in society, both in every day situations and in the world of work.

Using the Programmes of Study from the National Curriculum the aims of mathematics are:

1. To equip pupils with the mathematical ability to become numerate.
2. To promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion
3. To create a lively, exciting and stimulating environment in which all children can learn Maths
4. Ensure the delivery of Maths is filled with cross curricular opportunities
5. To promote confidence and competence with numbers and the number system and to use mathematical vocabulary to reason and explain

6. To develop the ability to solve problems through decision making and reasoning in a range of contexts
7. To develop a practical understanding of the ways in which information is gathered and presented.
8. To explore features of shape and space and develop measuring skills in a range of contexts
9. For children to challenge and stretch themselves and take risks in their learning
10. To promote the concept that acquiring mathematical knowledge and skills provides the foundation for understanding Maths in everyday life.

Strategies

It is important that children are allowed to explore Maths and present their findings not only in a written form but also visually- allowing the children to experience the physical aspects of Maths before finding a way to present their findings and understandings in a visual form before relying on the abstract numbers. At St Cuthbert's we use Numicon, multilink, base 10 rods (as well as others) as a visual aids for children. As a school we have 30 mini sets and 5 regular sets of Numicon.

As mentioned (for planning) we mainly use:

Hamilton Trust

White Rose Hub

Twinkl

To aid our teaching we take the LO's from Hamilton as a guide for complete coverage.

Organisation

We have recently introduced 'stage not age' groups to teach Maths at St. Cuthbert's, after having a 'stage not age' approach in individual classes, so we can target children properly and offer the correct intervention when needed.

This means that children need to be regularly exposed to opportunities involving increasingly complex problem solving which allows them to apply their Maths knowledge. In doing so they should be encouraged to develop an argument and line of enquiry which they can prove and justify using mathematical vocabulary. This includes the ability to break down problems. We have split the school in 5 teaching groups:

1. Nursery
2. Reception/Year 1
3. Year 1/2/3/4 – aimed at Year 2/3 L.Os
4. Year 4/5
5. Year 5/6 – aimed at Year 6 L.Os

BIG MATHS

In Key stage One and Key Stage Two: we have weekly BIG MATHS test. (A test of questions involving up to all four operations – answered in 90 seconds).

Display and Resources

1. In the classrooms there should be, either on display or easily accessible to children, appropriate resources, particularly concrete and pictorial apparatus to support children to grasp concepts. All Maths teaching areas have a maths working wall – which is updated every 3 weeks.
2. Mathematical vocabulary should be displayed so that children use this in the communication of their understanding.
3. There should be maths work on display in classrooms and in other areas of the school to encourage a positive attitude and enthusiasm towards mathematics for all groups of children.
4. Mathematical materials, equipment and basic resources are stored in each classroom. The Mathematics Co-ordinator (Miss Brownsord) should be informed when equipment needs replacing or supplementing. The children are shown how to take care of equipment and resources and progressively encouraged to select materials suitable for the task in which they are engaged.

Role of the Subject Leader:

1. To provide a strategic lead and direction for the subject;
2. To support and offer advice to colleagues on issues related to the subject;
3. To monitor pupil progress in that subject area;
4. To provide efficient resource management for the subject;
5. To attend cluster maths meetings (including maths HUB);
6. To keep up to date with developments in Maths , at both national and local level;
7. To review the way the subject is taught in the school and plan for improvement. This development planning links to whole-school objectives.
8. To review the curriculum plans for their subject, ensure that there is full coverage of the National Curriculum and that progression is planned. They must then monitor and review this on a regular basis, by conducting book scrutiny, learning walks and through discussion with both pupils and staff.

Outcomes

Intended outcomes: our pupils will learn to:

1. Develop the appropriate mathematical language associated with number, shape and position;
2. Use and apply mathematics in practical tasks, in real life problems and in acquiring further knowledge, skills and understanding in the subject itself;
3. Understand and use the four operations of number in relevant contexts;
4. Understand relationships between numbers, learn basic number facts and develop a range of computational methods;
5. Understand place value in our counting system and understand how it can be extended into numbers below zero;
6. Use their mathematical skills in simple problem solving;
7. Collect, interpret and represent data in tabular, graphical and diagrammatic form;
8. Develop mental methods of calculation;
9. Recognise, describe and represent shapes and patterns in terms of their properties, location and movement;
10. Measure quantities including length, area, volume/capacity, angle, temperature, time and mass;
11. By the time children reach Year 6 they will be introduced to ratio/ proportion and language of algebra as a means for solving a variety of problems;
12. Pupil to be at the Age Related Expectations (ARE) at the end of their appropriate school year.

Inclusion

In accordance with the school's Equal Opportunities Policy, all children will be given full access to the National Curriculum, unless their EHC Plan indicates otherwise. Staff will actively support all children to reach their potential regardless of academic ability, race, gender or age. Children who receive additional or extra support, including those with an EHCP or identified as Gifted and talented, have learning provision tailored to their needs. These are followed as far as possible as part of the normal classroom teaching but sometimes require specific input involving withdrawal from the main classroom environment for short periods of time. Inclusive practice across the curriculum should enable all children to achieve their best possible standard.

Equalities Statement

Through appropriate treatment of all, St. Cuthbert's Catholic Primary School aims to eliminate unlawful discrimination, prejudice, harassment and stereotyping and strive to maintain policies that comply with current legislation. This applies to all members of the school community – pupils, staff, governors, parents/carers and community members. During the review of this policy the nine

protected characteristics of the Public Sector Equality Duty, i.e. race, disability, religion or belief, sexual orientation, pregnancy, maternity and gender reassignment have been considered.

Data Protection Statement

The procedures and practice created by this policy have been reviewed in the light of our Data Protection Policy. All data will be handled in accordance with the school's Data Protection Policy.



St. Cuthbert's
CATHOLIC PRIMARY SCHOOL

ONE FAMILY, ALL WELCOME