



St. Cuthbert's CE Primary School

Policy for Mathematics

This policy outlines the teaching, organisation and management of mathematics. It is directly linked to the 2014 Primary National Curriculum and is to be used in conjunction with the school's calculation policy.

Introduction

Mathematics teaches children how to make sense of the world around them through developing the ability to calculate, reason and solve problems. It enables children to understand 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.

Aims

We aim to provide a mathematical curriculum that will ensure that all children are numerate, creative, independent, inquisitive, enquiring and confident, and can develop their mathematical skills to their full potential. In the teaching of Mathematics at St. Cuthbert's CE Primary School we aim to:

- Promote enjoyment of learning through practical activity, exploration and discussion
- Promote confidence and competence with numbers and the number system
- Enable children to instantly recall key number facts and use these in their learning
- Ensure children calculate accurately and efficiently, both mentally and in writing, drawing on a range of strategies
- Teach children to explain their methods and reasoning using the correct mathematical vocabulary
- Develop the ability to solve problems through decision making and reasoning in a range of contexts
- Develop a practical understanding of the ways in which information is collected and presented
- Explore features of shape and space and develop measuring skills in a range of contexts
- Help children understand the importance of Maths in everyday life
- Develop the cross curricular use of Maths in other subjects

Teaching and Learning Guidelines

Mathematics is a core subject in the National Curriculum 2014, which is the basis for all planning.

Throughout the school, medium term planning is firmly based on NYCC Mixed Age Group Planning (common/staff resources/ curriculum/ maths). This ensures that the core elements of key calculation skills are taught alongside fluency, reasoning and problem solving. We endeavour at all times to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing.

Units may be moved within the term and time taken per unit may vary in accordance with the needs of the children in class. However it is essential that each strand is covered with a focus on reasoning and problem solving.

The strands are:

- Number and place value
- Number – addition and subtraction
- Number - multiplication and division
- Number – fractions, decimals and percentages
- Measure
- Geometry
- Statistics
- Algebra (Y6 only)

Daily or weekly short term planning has no fixed format. Planning is a working document to be annotated and used as necessary for classroom use.

All staff must use the calculations policy when teaching to ensure continuity and progression across the year groups.

Big Books

Big books may be used to evidence practical work and problem solving in Maths, especially in Key Stage 1. These include children's work, photos and comments from adults and children. All work is dated and has the learning objective clearly displayed.

EYFS

We relate mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, which underpin curriculum planning for children aged 3-5. NYCC mixed age planning is used wherever appropriate, and adapted to suit children's interests. Children have ample opportunity to develop their understanding of numbers, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

The Classroom Environment

We endeavour to provide a rich and stimulating learning environment which celebrates children's learning processes and work.

Each classroom has a Maths working wall which showcases current learning as well as any ongoing information for reference, such as number lines and hundred squares. Current vocabulary is displayed alongside materials and examples that will help the children with their learning.

Manipulatives and a wide range of concrete resources are available for all children to use.

Smartboards and ICT are used where appropriate.

Maths Passports

Maths passports are to be introduced in September 2017 throughout Early Years and Key Stage 1.

1. Each child is assessed and given an appropriate passport and guidelines.
2. Children practise passport number facts at home and school.
3. Each class has timetabled Passports Practice for 10 minutes at least twice a week, where activity cards can be used. Skills are also practised in some Maths lessons.
4. Each target must be signed 3 times by teaching staff before moving to the next target.
5. Once a passport is complete, children are tested by the Headteacher or another member of staff (not the class teacher).
6. No thinking time or fingers are allowed if a target or passport is to be signed off.
7. A certificate, passport prize and new passport are given out in celebration assembly.
8. The child's name appears in the school newsletter.
9. Old passports with the start and finish date are kept in class passport files.

There will be a Maths Passport display in the Early Years and Key Stage 1 entrance. Children need to complete the Success Form so that their class teacher knows that they are ready to be tested.

Assessment

Assessment is an integral part of teaching and learning and is a continuous process. In addition to teachers' ongoing assessment;

1. At the beginning of each unit 'spider/snail diagram' to be stuck in and children to annotate as way of initial assessment and then leave the next page blank.
2. At the end of each unit, teachers will produce an assessment to include reasoning questions to assess learning. This is to be stuck next to the 'spider/snail diagram.'
3. Assessment in EYFS is ongoing, with evidence in Learning Journeys.
4. Termly PUMA tests will provide formal assessment. Assessment data is used to analyse strengths and areas for development on an individual and year group basis. This then informs future planning.
5. Y2 and Y6 have formal SAT tests in May. Other year groups complete termly PUMA assessments.

Reporting to parents

Progress in maths will be discussed at parent meetings held twice per year but discussions may be held in the interim if necessary. The Christmas report allows parents to see if their child is on target. The annual written report to parents also reports progress.

Monitoring and Review

The quality of teaching and learning in mathematics is monitored and evaluated by the Headteacher as part of the school's agreed cycle of monitoring and evaluation.

Rachel Thomas is the subject leader for Mathematics and as such will:

- Coordinate and plan the maths curriculum
- Provide a strategic lead and direction for the subject

- Support colleagues in their teaching, including sourcing CPD opportunities, and researching and ordering new resources
- Attend network meetings and feed back to staff
- Undertake book scrutiny
- Undertake informal learning walks

Equal Opportunities

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multicultural aspects of mathematics e.g. Islamic patterns in RE. All children have equal access to the curriculum regardless of their race or gender. Class teachers are responsible for challenging more able pupils and intervention programmes may be used to reduce any barriers to learning.