



St Cuthbert's Catholic Primary School

Mathematics Policy

St Cuthbert's Mission Statement

God made us all unique
To learn, live and grow
To show care, concern and friendship
To be the best we can
Showing Christ's love in all we do.

Rationale

Mathematics equips pupils with the uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them.

The National Curriculum for mathematics (2014) describes in detail what pupils must learn in each year group. Combined with our Calculation Policy, this ensures continuity, progression and high expectations for attainment in mathematics.

It is vital that a positive attitude towards mathematics is encouraged amongst all of our pupils in order to foster confidence and achievement in a skill that is essential in our society. At St Cuthbert's we use the National Curriculum for Mathematics (2014) as the basis of our mathematics programme. We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education. Assessment for Learning, an emphasis on investigation, problem solving, the development of mathematical thinking and development of teacher subject knowledge are therefore essential components of our approach to this subject.

Aims

- To foster a positive attitude to mathematics as an interesting and attractive part of the curriculum.
- To develop the ability to think clearly and logically, with confidence, flexibility and independence of thought.
- To develop a deeper understanding of mathematics through a process of enquiry and investigation.
- To develop the ability to apply knowledge, skills and ideas in real life contexts outside the classroom, and become aware of the uses of mathematics in the wider world.
- To develop the ability to use mathematics as a means of communicating ideas.
- To develop an ability and inclination to work both alone and cooperatively to solve mathematical problems.
- To develop personal qualities such as perseverance, independent thinking, cooperation and self-confidence through a sense of achievement and success.

Principles of Teaching and Learning

The school uses a variety of teaching and learning styles in mathematics lessons during each lesson. Children from Y3 to Y6 are taught in differentiated sets.

Our teachers strive to:

- build children's confidence and self esteem

- develop children's independence
- allow all children to experience regular success
- use practical approaches to mathematics (models and images)
- encourage children to independently select resources to help them
- challenge children of all abilities
- encourage children to enjoy mathematics
- develop a child's understanding of mathematical language
- learn from teachers, peers and their own mistakes
- allow children to ask questions as well as answer them.

Our pupils should:

- have a well-developed sense of the size of a number and where it fits into the number system (place value)
- know by heart number facts such as number bonds, multiplication tables, doubles and halves
- calculate accurately and efficiently, both mentally and using standard written methods, drawing on a range of calculation strategies
- make sense of number problems, including non-routine/'real' problems and identify the operations needed to solve them
- explain their methods and reasoning, using correct mathematical terms
- judge whether their answers are reasonable and have strategies for checking them where necessary
- suggest suitable units for measuring and make sensible estimates of measurements
- explain and make predictions from the numbers in graphs, diagrams, charts and tables
- develop spatial awareness and an understanding of the properties of 2D and 3D shapes.

To provide adequate time for developing mathematics, maths is taught daily and discretely. However, these skills are applied across the curriculum where appropriate.

Maths Curriculum Planning

Mathematics is a core subject in the National Curriculum and we use the objectives from this to support planning and to assess children's progress.

It is the class teacher who completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives for each session and give details of how the sessions are to be taught.

Assessment

This section details the various assessment methods and practices used at St Cuthbert's through which we ensure that children are making appropriate progress and that the activities they take part in are suitably matched to their ability and level of development.

Formative Assessment (AfL) - (monitoring children's learning)

Assessment is an integral and continuous part of the teaching and learning process at St Cuthbert's and much of it is done informally as part of each teacher's day to day work. Teachers integrate the use of formative assessment strategies such as: effective questioning, clear learning objectives, the use of success criteria, effective feedback and response in their teaching and marking and observing children participating in activities. Findings from these types of assessment are used to inform future planning.

Summative Assessment – (evaluating children's learning)

More formal methods are used to determine the levels of achievement of children at various times during the school year:

We use formal assessments as a way of recording children's progress in objectives covered across specific topics. This information is then updated onto the child's maths assessment sheet. Teachers use the Sheffield tracking grids for each child on an on-going basis to record progress and to identify next steps for learning in mathematics. Pupils' achievement is recorded in steps.

Early Years Foundation Stage (EYFS)

We follow EYFS curriculum guidance for Mathematics. However, we are committed to ensuring the confident development of number sense and put emphasis on mastery of key early concepts. Pupils explore the 'story' of numbers to twenty and the development of models and images for numbers as a solid foundation for further progress.

Resources

A bank of essential mathematics resources are kept in each classroom. Further resources relating to key whole school topics are kept in a maths cupboard.

Information and Communication Technology

Teachers should use their judgement about when ICT tools should be used.

Role of the Subject Leader

- Ensures teachers understand the requirements of the National Curriculum and helps them to plan lessons.
- Leads by example by setting high standards in their own teaching.
- Prepares, organises and leads CPD and joint professional development.
- Works with the SENCO and SLT.
- Observes colleagues with a view to identifying the support they need.
- Discusses regularly with the Headteacher the progress of implementing National Curriculum for Mathematics in school.
- Monitors and evaluates mathematics provision in the school by conducting regular work and planning scrutinies.

Moderating and review

Moderating of the standards of children's work and of the quality teaching in mathematics is the responsibility of the mathematics subject leader alongside members of the senior leadership team. The work of the mathematics subject leader also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

This policy will be reviewed annually.