



All Saints C of E

Infant and Nursery School

Numeracy Policy

*Opening hearts and minds through
the grace and love of God*

ALL SAINTS CHURCH OF ENGLAND (VA) INFANT AND NURSERY SCHOOL

MISSION STATEMENT

"Opening hearts and minds through the grace and love of God"

At All Saints Infant and Nursery School, children always come first and we try to nourish, challenge, prepare and inspire them within a Christian ethos.

We believe in valuing all who contribute towards the successful running of our school including children, parents, carers, governors, teaching and non-teaching staff.

This Mission Statement lies at the heart of our school's aims. It is the philosophical basis for all of the school's policies and through these, for everything that happens in and round the school. Our aspiration is for everyone at All Saints to:

- feel happy, secure, safe and valued at school
- develop a growing awareness of their own inner self and spirituality, and of the power of the Christian faith to transform lives
- develop healthy relationships based on care, trust, compassion and forgiveness
- show acceptance for and understanding of others who may have different beliefs or needs
- strive for the highest standards of achievement, developing the confidence and skills to be independent, motivated and self-disciplined learners
- have a positive approach to life, contributing to the well-being of the community and building hope for the future

We hope that children will leave our school with open hearts and minds, ready to respond to the opportunities that lie before them and to experience the joy of life in all its fullness.

Introduction

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. (National Curriculum 2014)

The aims of the 2014 National Curriculum are for our pupils to:

- Become fluent in the fundamentals of mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically; follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems. Breaking down problems into simpler steps and persevering in answering.

The National Curriculum sets out year-by-year programmes of study for key stages 1 and 2. This ensures continuity and progression in the teaching of mathematics.

The EYFS Statutory Framework 2019 sets standards for the learning, development and care of children from birth to five years old and supports an integrated approach to early learning. This is supported by the 'Development matters' non statutory guidance.

The EYFS Framework in relation to mathematics aims for our pupils to:

- develop and improve their skills in counting
- understand and use numbers
- calculate simple addition and subtraction problems
- describe shapes, spaces, and measures

The purpose of mathematics in our school is to develop:

- positive attitudes towards the subject and awareness of the relevance of mathematics in the real world
- competence and confidence in using and applying mathematical knowledge, concepts and skills
- an ability to solve problems, to reason, to think logically and to work systematically and accurately
- initiative and motivation to work both independently and in cooperation with others

- confident communication of maths where pupils ask and answer questions, openly share work and learn from mistakes
- an ability to use and apply mathematics across the curriculum and in real life
- an understanding of mathematics through a process of enquiry and investigation

We aim to provide a stimulating and exciting learning environment that takes account of different learning styles and uses appropriate resources to maximise teaching & learning.

Breadth of study

Careful planning and preparation ensures that throughout the school children engage in:

- practical activities and games using a variety of resources
- problem solving to challenge thinking
- individual, paired, group and whole class learning and discussions
- purposeful practise where time is given to apply their learning
- open and closed tasks
- Differentiated challenges
- Using outdoor areas to practise mathematical thinking and problem solving
- Everyday mathematical opportunities during daily routines
- a range of methods of calculating e.g. mental and pencil & paper

Through our creative approach to teaching and learning we also seek to explore and utilise further opportunities to use and apply mathematics across all subject areas.

Teachers planning and organisation

Long term planning

The National Curriculum for Mathematics 2014, Development Matters and the Early Learning Goals (Number, Shape Space & Measure) provide the long term planning for mathematics taught in the school.

Medium term planning

Reception and Years 1-2 use the Big Maths medium term planning documents. These Termly Learning Objectives documents provide teachers with exemplification for maths objectives and are broken down into progress drives. They support a mastery approach to teaching and learning and have number at their heart. They ensure teachers stay in the required key stage and support the ideal of depth before breadth. They support pupils working together as a whole group and provide plenty of time to build reasoning and problem solving elements into the curriculum.

Short term planning

The above Termly Learning Objectives document and online planning tool supports teachers to plan daily CLIC and SAFE sessions. Lessons are planned by selecting the appropriate progress drive and are monitored at intervals by the mathematics subject leader. EYFS planning is based on the medium term plans and delivered as

appropriate to individual children with thought to where the children are now and what steps they need to take next.

All classes have a daily mathematics lesson where possible. In key stage one lessons are 45-60 minutes.

Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child initiated activities both inside and outside of the classroom. Mathematics is taught through an integrated approach.

Equal Opportunities

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics. This policy is in line with the school's 'Racial Equality' policy.

The aim is to ensure that everyone makes progress and gains positively from lessons and to plan inclusive lessons. Lessons involving lots of visual, aural and kinaesthetic elements will benefit all children including those for whom English is an additional language (EAL).

Differentiated questions are used in lessons to help children and planned support from Teaching Assistants and other adults.

Lessons

In all lessons, learning objectives and success criteria are discussed with the children.

The emphasis in lessons is to make teaching interactive and lively, to engage all children encouraging them to talk about mathematics. Lessons involve elements of:

- Instruction – giving information and structuring it well;
- Demonstrating – showing, describing and modelling mathematics using appropriate resources and visual displays;
- Explaining and illustrating – giving accurate and well-paced explanations;
- Questioning and discussing;
- Consolidating;
- Reflecting and evaluating responses – identifying mistakes and using them as positive teaching points;
- Summarising – reviewing mathematics that has been taught enabling children to focus on next steps

Mental Mathematics

In order that children feel confident in mental arithmetic, we will include **CLIC** sessions into our lessons. These 20 minute periods will incorporate four ideals:

- Counting - (reading numbers, place value, ordering numbers, sequences, etc)
- Learn its – (number bonds, multiplication tables)
- It's nothing new – (applying their knowledge to a range of problems)
- Calculation – (mental arithmetic and problem solving)

To track children's arithmetic attainment, weekly tests will be completed in the form of a timed mental arithmetic, reasoning and problem solving test. These tests are broken down through levels 1 – 9, with 9 being the highest level of difficulty at the end of Key Stage 1. Children's progress in these tests will be determined by achieving full marks on three consecutive attempts, although teacher discretion may be applied on certain occasions. Children must be encouraged to achieve a level of ability aligned to the Big Maths guidelines.

Pupils' Records of work

Children are taught a variety of methods for recording their work and are encouraged and helped to use the most appropriate and convenient. Children are encouraged to use mental strategies and their own jottings before resorting to more formal written methods.

Marking

Marking of children's work is essential to ensure they make further progress. Work is marked against success criteria, in line with the school marking policy. Some pieces of work in mathematics can be marked by children themselves, exercises involving routine practice with support and guidance from the teacher.

Assessment

Assessment is an integral part of teaching and learning and is a continuous process. Teachers make assessments of children daily through;

- regular marking of work
- analysing errors and picking up on misconceptions
- asking questions and listening to answers
- facilitating and listening to discussions
- making observations

These ongoing assessments inform future planning and teaching. Lessons are adapted readily and short term planning evaluated in light of these assessments.

Medium term

Termly assessments are carried out across the school using the assessment materials for each year group provided by the White Rose Maths Hub in line with the schemes of learning. These materials used alongside judgements made from class work support teachers in making an overall teacher assessment judgement.

Pupil Progress meetings are timetabled each term for all classes. Progress of pupils is discussed and appropriate intervention considered and put in place where appropriate.

Long term

Y2 national tests (SATs) in May.

Resources

Each class has a stock of core resources that are age appropriate. Additional mathematical equipment and resources are stored centrally in the resources room.

Role of the Maths Subject Leader

- To lead in the development of maths throughout the school.
- To monitor the planning, teaching and learning of mathematics throughout the school.
- To help raise standards in maths.
- To provide teachers with support in the teaching of mathematics.
- To provide staff with CPD opportunities in relation to maths within the confines of the budget and the School Improvement Plan
- To monitor and maintain high quality resources.
- To keep up to date with new developments in the area of mathematics

Lynette Hardwick – Maths Subject Leader