Mathematics Policy

Let it be known to all who enter here that
Christ is the reason for this school,
The unseen but ever present teacher in its classes,
The model for its children, the inspiration for its staff.

1 Aims

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

1.2 The aims of teaching mathematics are:

- to promote enjoyment of learning through practical activity, exploration and discussion;
- to promote fluency, confidence and competence with numbers and the number system, geometry, measurement, statistics and algebra.
- to develop the ability to solve problems through decision-making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered and presented;
- to understand the importance of mathematics in everyday life.

2 Teaching and learning style

2.1 At Sacred Heart Catholic Primary School, we use a variety of teaching and learning styles in mathematics. Our principal aim is to develop children's knowledge, skills and understanding. They have the opportunity to use a wide range of resources, such as number lines, number squares, digit cards and small apparatus to support their work. Technology is used in mathematics lessons for modelling ideas and methods through the use of interactive whiteboards. Wherever possible, we encourage the children to apply their learning to everyday situations.

2.2 In all classes children have a wide range of mathematical abilities. We recognise this fact and provide suitable learning opportunities for all children and believe that all children can achieve when presented with the correct support, guidance and challenge. We achieve this through a range of strategies – in some lessons through differentiated group work, or by organising the children to work in pairs or groups on open-ended problems or games. We aim to provide opportunities for them to become independent learners and develop a sense of enjoyment and curiosity about the subject. We also use classroom assistants to support the children.

3 Mathematics curriculum planning

3.1 Mathematics is a core subject in the National Curriculum. We use the New National Curriculum as the basis for implementing the statutory requirements of the programme of study for mathematics.

3.2 Each year group follows the long term programmes of study from the National Curriculum and in addition teachers plan weekly and personalise lessons for their class and individuals according to their needs. This ensures an appropriate balance and distribution of key mathematical skills across each term. We also use and have access to White Rose planning which helps teachers plan and scaffold challenge within the curriculum.

3.3 Subject leaders monitor planning on a regular basis and share good practice with all staff.

4 The Foundation Stage

4.1 We teach mathematics in our Nursery and Reception classes. We relate the mathematical aspects of the children's work to the objectives set out in the Early Years Framework, which underpin the curriculum planning for children aged three to five. We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space, through varied practical activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

5 Contribution of mathematics to teaching in other curriculum areas

5.1 English

The teaching of Mathematics contributes significantly to children's understanding of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example, in mathematics lessons we expect children to read and interpret problems, in order to identify the mathematics involved. They are also improving their command of English when they explain, reason and present their work to others. In English lessons maths also contributes whereby younger children can enjoy stories and rhyme that rely on counting and sequencing, while older children encounter mathematical vocabulary, graphs and charts when reading non-fiction texts.

5.2 Personal, social and health education (PSHE) and citizenship

Mathematics contributes to the teaching of PSHE and citizenship. The work that children do outside their normal lessons encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work together and respect each other's views. We present children with real-life situations in their mathematics work, for example, solving problems involving money.

5.3 Spiritual, moral, social and cultural development

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We encourage children to work respectfully together and consider each other's views.

6 Mathematics and Computing

6.1 Computing enhances the teaching of mathematics significantly, because it is particularly useful for mathematical tasks. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers and pupils can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. Children use it to produce graphs and tables when explaining their results, and to develop the fluency and confidence in the key skills of mathematics. Times Tables Rockstars is an online learning resource used from years 2 and above to develop speed and recall of multiplication facts. Classes also have use of the school set of iPads to help with learning their multiplication table facts.

7 Mathematics and inclusion

7.1 At Sacred Heart we teach mathematics to all children, whatever their ability and individual needs. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our mathematics teaching we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents and those learning English as an additional language, and we take all reasonable steps to achieve this. For further details see separate policies: Special Educational Needs; Disability Non-Discrimination; Gifted and Talented; English as an Additional Language (EAL).

7.2 Work is differentiated by the class teacher to take into account the needs of all pupils. Equal opportunities to achieve irrespective of gender, racial origin or any other factors are encouraged enthusiastically throughout the school. Extra support materials and interventions are available for children of different abilities throughout the school. In addition, in years 3, 4, 5 and 6, the higher attaining pupils are streamed into an ability set, assuring challenge at the mastery level of mathematics. We provide reinforcement of key skills and further challenge for all other groups of children working at their own individual pace.

8 Assessment for learning

8.1 Teachers will assess children's work in mathematics in various ways. We use formative assessments to help us adjust our daily plans.

8.2 We make summative assessments at the end of each term, based on informal tests and/or teacher assessments. This enables us to measure progress against the key skills, and to help us plan the next unit of work.

8.3 Throughout the school year, we use our assessments to set targets and report to parents. We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. Children in years 2 and 6 will sit the National Curriculum statutory assessment tests (SATS) in the Summer Term. All other year groups will complete an age-related assessment.

8.4 A curriculum group for mathematics meets regularly to review any issues which have arisen with regards to standards in mathematics within the school. The subject leaders make note of any issues raised and addresses them forthwith, thus avoiding long term problems in any areas of concern. Phase groups and year groups meet regularly to review and moderate individual examples of work.

9 Resources

9.1 All classrooms and central storage areas are equipped with a wide range of appropriate mathematical apparatus. The Maths Room is the main storage area for resources and is used as an extra support area for mathematical intervention. The Computing Suite and class set of Ipads are also available for mathematics lessons. A range of software and apps are used to support teaching and learning of mathematics. The library contains a number of books to support children's individual research. Reference books, text books, photocopy masters and investigative books are stored in the staffroom or are kept in relevant year group areas.

10 Monitoring and review

10.1 Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the subject leaders. The work of the subject leaders also involves supporting colleagues in their teaching, being informed about current developments in the subject, and providing a strategic lead and direction for mathematics in the school. They represent the school at regular co-ordinators meetings with other schools in the borough, ensuring that the school is kept up to date with current trends and practices within the borough. The subject leaders give the head teacher regular informal feedback, in which s/he evaluates strengths and weaknesses in the subject, and indicates areas for further improvement. The head teacher allocates regular management time to the subject leaders so that they can review samples of children's work and undertake lesson observations of mathematics teaching across the school.

10.2 This policy will be reviewed at least every two years.

Due for review: September 2027