
OUR LADY IMMACULATE CATHOLIC PRIMARY SCHOOL MATHEMATICS POLICY

The following policy reflects our values and philosophy in relation to the provision and teaching of mathematics at Our Lady Immaculate Catholic Primary School to produce children with mathematical fluency, children who confidently and successfully undertake mathematical activities both in the classroom and the world beyond. Mathematics is perceived as a vital life skill as well as an academic pursuit.

Policy Statement

Children that have mathematical fluency are confidently able to apply their mathematical knowledge and skills both at school and in their daily lives. Throughout the school mathematics is organised to follow the accelerated learning process. When possible, practical opportunities, using models and real life situations are incorporated. This will support and increase all children's access to excellent teaching, leading to exciting and successful learning.

Aims and purposes of mathematics

Mathematics teaching should contribute to the acquisition of life-long skills and promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion.

Through our provision for all children:

- will be able to apply their mathematical knowledge to solve problems, including those with real-life contexts, by choosing the appropriate operations
- can estimate the approximate size of the answer to check the reasonableness of their calculations
- will leave primary school with an efficient, reliable, compact written method of calculation for each operation
- develop a range of mental calculations strategies, aided by informal jottings where necessary
- are confident in the fundamentals of maths and be able to reason mathematically
- understand the importance of mathematical skills in everyday life

Achieving and Maintaining High Standards

The staff at Our Lady Immaculate Catholic Primary School have worked hard to understand the factors that lead to high standards in maths, and have developed a common approach to teaching maths throughout the school based on the following assumptions:

- The need to follow the agreed school curriculum, alongside the mental calculation policy.
- The primacy of mental calculations, backed by accurate and rapid recall of number facts, is acknowledged.
- The importance of incorporating a range of teaching approaches, together with appropriate differentiation.

Maths Mastery

At the start of the Autumn Term, teachers at OLI have begun to develop a mastery approach to teach mathematics in years 1 to 6. This approach to teaching mathematics is based upon leading research, pedagogy and principles which stem from high performing Asian nations such as Singapore.

The concept of teaching mathematics to mastery is to ensure that topics are well developed. Pupils will spend enough time to fully explore a concept before moving on to a different topic. As ideas are well formed, they are reinforced by sufficient practice. New knowledge is then used on subsequent lessons so that all ideas build on top of each other and pupils have ample opportunity to develop relationships between the topics. Ideas are revisited in a spiral curriculum as pupils progress through the years, each time at a higher level.

Singapore maths is a primary school programme which is fully aligned to the new National Curriculum.

Teaching and Learning style

In the Early Years Foundation Stage, maths is underpinned by the Characteristics of Effective Learning. Child initiated learning opportunities are cross-curricular and children experience a wide range of open-ended problems and resources, both indoors and out. In the EYFS maths is also taught as a discrete subject through child-led themes.

From Year 1, mathematics continues to be taught as a discrete subject, following the principles described above. Mathematical knowledge is applied and skills reinforced whenever relevant in other curriculum areas. Children have the opportunity to use a wide range of resources, such as Numicon, Cuisenaire, number lines, number squares, digit cards and small apparatus to support their work.

ICT is used in mathematics lessons for modelling ideas and methods. We also use online resources, such as: Maths No Problem, My Maths and Testbase to extend children's skills and understanding.

In the EYFS mathematics forms a fundamental part of the day. We relate the mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, 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, statistics and geometry through varied activities that allow them to enjoy, explore, practice and talk confidently about mathematics.

Assessment, Recording and Reporting

We believe that effective assessment provides information to improve teaching and learning. We give learners regular feedback on their learning so that they understand what it is that they need to do better. This allows us to create detailed planning based on a sound knowledge of each pupil. We give parents regular written and verbal reports on their child's progress so that teachers, children and parents are all working together to raise standards for all our children.

Assessment in maths is viewed as part of the assessment for learning cycle. Learning objectives and steps to success are discussed with the children in every lesson. Children are provided with opportunities for self/peer-assessment and improvement. Marking is developmental and children are provided with next steps to extend their learning at least weekly. Teachers monitor the acquisition of skills, knowledge and understanding through appropriate teacher intervention, observations and discussions with groups and individuals.

Children in year two and six are assessed through national end of key stage tests. We also make end of year teacher assessment judgments based on their progress towards key objectives. Pupils in all other year groups are judged through teacher assessment. These are used to set targets for next year. Children's progress in mathematics is discussed with parents at mid and end of year meetings. Parents also receive a written report twice yearly on their child's progress in all areas of the curriculum, including maths.

Equal Opportunities

The maths policy firmly supports the equal opportunities philosophies of the school. We ensure that all children have access to the full range of activities involved in learning mathematics. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, the more able and those learning English as an additional language, and we take all reasonable steps to achieve this.

Special Educational Needs

Where necessary, adaptations will be made to the curriculum, to equipment and to resources to allow access to maths for pupils with SEN, including provision for pupils that are exceptionally able in mathematics. Intervention programmes are provided for individuals and groups who require additional support in mathematics.

Curriculum Leadership

The role will include:

- Inspiring an exciting and creative approach to maths teaching
- Supporting maths teaching through advice, guidance, CPD and resources
- Sharing information acquired from courses or other sources that may be beneficial to staff
- Reviewing the maths policy and monitoring its implementation
- Regularly evaluating the maths scheme of work and amending as necessary
- The management, maintenance and storage of resources
- Organising pupil's participation in maths workshops and events
- Effectively managing the maths budget
- Reporting to parents, governors and others when appropriate

Resources

All classrooms have a wide range of resources and appropriate small apparatus to support the Maths No Problem textbook. Mathematical dictionaries are available in all classrooms.

Monitoring and review

Monitoring of the standards of children's work and the quality of teaching, including the assessment of the subject, is the responsibility of the subject leader. The work of the subject leader 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. The subject leader gives the headteacher and SLT an annual summary in which he/she evaluates strengths and weaknesses in the subject, and indicates areas for further improvement. The headteacher allocates regular management time to the subject leader so that s/he can carry out effective monitoring of the subject. A named member of the school's governing body is briefed to oversee the teaching and learning of numeracy. This governor meets regularly with the headteacher/SLT and subject leader to review progress.

This policy will be reviewed at least every two years.