



Mathematics and Numeracy

We believe that Mathematics and Numeracy is a very important part of the curriculum. It is essential for everyday life. It helps to develop a child's ability to think logically, to explore, to ask questions and to seek answers. Children's skills in numeracy will help them to make informed and responsible choices and decisions throughout their lives (eg. handle money, manage a budget).

We aim to give each child a positive attitude towards mathematics and numeracy by providing a stimulating enjoyable classroom environment with a suitable range of materials available for selection.

Aims

In the teaching of Mathematics and Numeracy we aim to develop:

- A positive attitude;
- An appreciation of the creative aspects;
- An ability to think clearly and logically;
- An understanding of mathematics through a process of enquiry and experiment;
- An appreciation of patterns and the ability to identify relationships;
- A mastery of basic mathematical skills and knowledge;
- An awareness of the uses of Mathematics in the world beyond the classroom;
- Personal qualities of perseverance, confidence, independence and co operation with others;
- An increasing confidence;
- An ability to communicate effectively through the medium of mathematics.

Mathematics and Numeracy across the Curriculum

Mathematics and Numeracy is not only taught as a separate subject but is linked to other areas of the curriculum, for example:

The World Around Us

By interpreting statistical data and using it to solve problems using measurement, shape, space and estimation in the world around them.

ICT

By using ICT to investigate, analyse, present and interpret information to discover patterns and relationships and to solve problems. Children will also be given opportunities to use databases, Logo, spreadsheets and programmable devices.

The Arts

By seeing and hearing patterns and by observing and making shapes; through creating pictures and models.

Physical Education

By collecting, analysing and interpreting data, for example, pulse rates.

PDMU

By using statistical data to inform personal and social decisions; by knowing what they can do in mathematics and persevere and work with confidence.

Mathematics and Numeracy also make significant contribution to the development of Thinking Skills and Personal Capabilities. Pupils are involved in activities which promote the skills of managing information, problem solving and being creative, whilst developing their abilities of working with others and self management.

Mathematical activities are, where possible, presented through contexts that have a real meaning for children and provide opportunities for them to investigate their ideas. As the development of mathematical language is of fundamental importance, talking about their work is a high priority. Activities are balanced between tasks which develop knowledge skills and understanding and those which develop the ability to apply mathematical learning and solve problems.

Classroom Management

The teacher has a key role in implementing the curriculum for Mathematics and Numeracy. As well as preparing the lessons and providing the necessary equipment, the teacher must also be constantly encouraging, advising and guiding pupils so that each child will reach his/her potential.

Mathematics and Numeracy is taught both in a whole class context, group work, paired and individual work. The teacher, in preparing tasks, is conscious of each child's level of understanding and ability and presents a well balanced range of activities for each topic. Children are challenged and given opportunities for investigating and problem solving. Different teaching strategies are used in accordance with the needs of each child.

Continuity and Progression

In our planning we seek to ensure that pupils have experiences across each of the five mathematical areas and through the different levels. Progression is ensured by using the Inter – Board Lines of Development with the content taken from the Northern Ireland Revised Primary Curriculum – Learning area of mathematics and numeracy.

Continuity is ensured by whole staff agreement on:

- Mathematical language and conventions remembering that each concept has its own language, concept and procedure.
- Compatibility of teaching approaches. Concepts will be developed through Mahesh Sharma's Six Levels of Knowing.
- Development of Schemes of Work which include progression in ICT
- Appropriate teaching strategies
- Classroom organisation
- Resources and materials
- Assessment and recording procedures.

Monitoring and Evaluation

Monitoring and evaluating are integral parts of the teaching and learning in our school and are the responsibility of all members of staff. The coordinator oversees the progress towards fulfilling our aims. This is achieved through:

- Informal discussions with staff
- Reviewing the Numeracy Action Plan
- Reviewing teachers' planning for numeracy
- Classroom observations

The evidence, which we gather through these monitoring procedures, is evaluated regularly to inform future planning. We ensure that pupils' work is of a high standard and that these standards are evaluated, maintained and improved.

We aim to do this through:

- The sharing of learning intentions and success criteria
- Formative assessment through teacher observation
- Teacher/child discussions about work.
- Peer and self Assessment
- Formal discussions based on evidence from work samples.
- Quality marking of pupils' work including discussion on areas for improvement.
- Use of standardised tests for certain age groups including Progress in Maths and End of Key Stage tasks
- Scrutiny of results of formalised tests.

Differentiation and Equal Opportunities

Staff provide a differentiated learning environment, which takes account of
Gender

Cultural Diversity

High and Low Achievers

Children with special Educational Needs

In planning to meet the needs of all pupils, teachers

- Use teaching approaches appropriate to different learning styles.
- Use a range of organisational approaches, such as grouping or individual work, to ensure that individual needs are properly addressed.
- Vary content and presentation so that it matches the learning needs of particular pupils
- Use a range of activities and contexts for work and allow a variety of interpretations and outcomes.
- Allocate sufficient time for children to complete tasks.
- Use accessible materials that suit children's age and level of learning

- Plan work which builds on interests and cultural diversity
- Plan the pace of work so that all children will have the opportunity to learn effectively and achieve success.
- Plan challenging work for those whose ability and understanding are in advance of their peer group.

SEN

In line with the Code of Practice, the special needs of individual pupils are catered for through consultation with parents, pupil, SENCO, Numeracy Co – coordinator and other appropriate agencies. To ensure early intervention when required, we regularly monitor the progress of all pupils.

Home / School Links

Parents will be kept informed of the progress of their children and how to participate in their education.

- An open door policy for parents with concerns
- Annual progress reports
- Annual teacher / parent interviews in the Autumn Term
- Well – chosen homework activities It is the responsibility of the Coordinator to:
- Monitor and evaluate the effectiveness of this policy as part of the annual review;
- Liaise with the Principal to ensure that each member of staff receives the necessary training and support to enable them to carry out their responsibilities at induction and as part of ongoing INSET.

This Mathematics and Numeracy Policy has been prepared in consultation with school staff.

Adopted by the Board of Governors of St. Mary's Primary School at a meeting held on 4th April 2022

Reviewed in January 2024

Signed (Chairperson)

Reviewed in February 2026

Signed..... (Chairperson)

Mahesh Sharma's Six Levels of Knowing

Based on the work by Sharma (1990), the term "level" refers to the order that information presented mathematically is processed and learned.

LEVELS OF LEARNING

The hierarchy of learning offers a structure for the teacher to follow. Sharma proposes the following order as effective for the teaching of mathematics.

