'BE THE BEST YOU CAN BE!'

MATHEMATICS Policy

Lead person responsible:
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Date: November 2024

Review Date: November 2027

Philosophy

At Roe Green Junior school we aim to foster children's mathematical understanding and help all children to develop a confident, skilled and resilient approach to all aspects of mathematics. By offering flexible groupings, providing engaging activities and an environment that embraces mistakes as opportunities for further learning we enable children to succeed as mathematicians.

Through the teaching of key mathematics skills we enable our children to:

- Be **fluent** in the fundamentals of mathematics
- **Reason** mathematically by following a line of enquiry
- **Solve** problems by applying their mathematical understanding and knowledge

This policy outlines the purpose, nature and management of the mathematics taught at our School. The implementation of this policy is the responsibility of all teaching staff.

At Roe Green Junior School we embrace the aims of the National Curriculum: **fluency, accuracy, precision, reasoning and problem solving**. 'Mastery' approaches to teaching mathematics are used to ensure **deep, long-term, secure** and **adaptable** understanding of the subject. We believe that mastery of mathematics is a tool for life and teachers reinforce an expectation that all pupils are capable of achieving high standards in mathematics.

Purpose

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.

The aims of mathematics are closely related to the general aims of Primary Education. Children will acquire skills of both language and number and will experience a variety of methods of learning. They will learn to think logically, discover, explore and in doing so, will begin to make sense of the world in which they live. To ensure this, they will acquire a range of mathematical experience, relevant mathematical language and skills to be able to solve mathematical problems with confidence. In line with the school aim of "Be The Best You Can Be", we strive to develop strategies which allow inclusion by all in Maths lessons.
We aim to ensure that each child, no matter their ability or difficulties, will develop:

- a positive attitude to mathematics as an interesting and attractive subject.
- an ability to think clearly and logically in mathematics with confidence, independence of thought and flexibility of mind.
- an awareness of the uses of mathematics in the world beyond the classroom
- an understanding that mathematics will frequently help them to solve problems they meet in everyday life

- an appreciation of the nature of numbers and of space, and therefore an awareness of the basic structure of mathematics
- self-motivation and aspiration to persevere and succeed
- a perception that Maths is fun and enjoyable

These aims will be met by increasing confidence in mathematics through a process of enquiry and experiment. The aims will be evident in the children's ability to express ideas fluently, to talk about the subject with assurance and to use the language of mathematics confidently and in the appropriate context.

Outcomes

The teaching of mathematics will be in line with the whole school teaching and learning policy. It will also be wholly compatible with the school aims and mission.

Delivery

- Timetables are generally designed to incorporate one daily Maths session
- Mathematics teaching will be in line with the New National Curriculum.
- Mental strategies are the focus of every lesson 'starter' and are incorporated as an integral part of all Maths teaching when displaying/discussing methods
- Teachers will take every opportunity to ask open questions.
- Teaching staff will probe and challenge answers; where appropriate, ask for alternative strategies or explanations.
- Teaching staff will seek to ensure that every child has the opportunity to use and apply their mathematical knowledge on a regular basis.
- Teachers will respond to individual needs with carefully targeted questioning.
- Written methods of calculation will be taught in accordance with the School Calculation policy.

Equal Opportunities

We believe every child is entitled to a full, varied and balanced mathematical education, regardless of class, gender, race or disability. We guarantee to provide these experiences for all pupils including pupils with specific educational needs. To ensure this, teachers will:

- Refer to the various cultural backgrounds of the children when making cross curricular links.
- Continually research and update multicultural aspects ensuring good representation in the school.

- Give opportunities for different groupings, e.g. pairs, small groups, individual friendship and mixed gender.
- Ensure that all children's opinions, evaluations and judgements are valued and seen to be equally valid.
- Individual Support Plans will be used for children who have been identified as having special education needs and disabilities. Individual Support plans will be written in collaboration with the SENCO. Work will be differentiated accordingly.
- Opportunities to link mathematics with other areas of the curriculum are also used.

Monitoring

The subject leader will make book and lesson observations throughout the year to ensure continuity and progression and to inform the action plan for the next academic year. Teachers produce reports to parents once a year and there are opportunities for parents to discuss work during parent's evenings or after school if an appointment is made.

Parents and Homework

Homework will be set in each class in line with the guidance set out in the school policy and should be recorded in the child's homework diary. Parents can also refer to the calculation policy and curriculum overview on the school website to support their children with their learning.

Marking

Marking in Mathematics is in line with the school marking policy

- Teachers will use the following symbols (in purple pen) **dots, underline work or circle work** to indicate an error.
- The pupil will need to correct his/ her mistakes (in green pen when possible)
- There should be no crosses on the work except in Mental Maths.

Assessment

- Teachers will assess pupils as part of their daily teaching. Children's knowledge and understanding is informally assessed during class in group question and answer sessions and through observation during lessons as well as in the marking of written work.
- Teachers will plan their lessons with the FOCUS objectives (Taken from the National Curriculum) in mind and use those objectives to decide if groups of children/ individual children are meeting year group expectations.
- Teachers will annotate plans to make appropriate provision for children who are not meeting or who are exceeding expectations
- Teachers in Years 3-4 will assess pupils at the end of each term. Assessments will be taken from the White Rose Maths Scheme at the end of each topic. Teachers in Year 6 will use a variety of assessment tools e.g. previous SATS papers, Testbase and White Rose Maths which meet the needs of the children in individual sets.

- End of year assessments (Years 3-5) e.g. NFER will assist teachers in making final judgements with regards to age appropriate expectations
- Year 6 will continue to be assessed using the statutory end of KS2 tests
- Assessments are recorded in-line with the school assessment policy
- Outcomes of any formative assessment will be analysed and appropriate measures will be taken to address any issues. Any issues that arise will be addressed within year groups and follow up lessons.