



'BE THE BEST YOU CAN BE!'

MATHEMATICS Policy

Lead person responsible:

Mrs P Dodhia

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Philosophy

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 strongly believe that an active approach in the teaching of Mathematics is the key to more confident and competent mathematicians. We also have a strong focus on written calculation and mental maths. Furthermore, children are taught how to solve real life problems, using a range of strategies

At Roe Green Junior School we follow the guidance of the new *National Curriculum in England* in designing a programme of study which supports and stretches all children to achieve their best.

Our Aims

To ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems over time. Pupils will develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions." (*Mathematics programmes of study: key stages 1 and 2, National Curriculum in England, September 2013*).

Purpose

Each year group has a program of study for the teaching of grammar, punctuation, and spelling as outlined in The National Curriculum in England

However, depending on the needs of the children, key concepts can and should be revisited through the year and key stage.

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 and 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.
- Teachers will use a range of ICT resources to enhance their Maths teaching and the children will be given regular access to ICT to reinforce and consolidate their Mathematical learning.

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 whole school will carry out book and folder observations throughout the school year. The subject leader will make book and folder 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.

Resources

The main scheme available to all year groups is White Rose Maths. White Rose Maths forms the basis for teachers medium term plans and is supplemented with an amalgamation of Collins Busy Ant Maths, Target Your Maths and copyright free materials from various sources which support children in their learning. Personalised PowerPoints and Smartboards are made and adapted for each lesson; however, computer software such as *Espresso* and *Mymaths* are used to enhance some lessons. Teachers are responsible for their own classroom resources although stock is held centrally and can be accessed by all teachers.

Marking

Marking in Mathematics is in line with the school marking policy

- Teachers will use the following symbols **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.