



Farnborough Road Infant School **Mathematics Policy**

“Learning, Caring and Achieving Together”

Our vision

“A high-quality maths education 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.”

Primary National Curriculum 2014

The mathematics curriculum at Farnborough Road Infant School embraces this principal and aims to ensure that all of our children, from EYFS to year 2 are *fluent* in the fundamentals of Maths, are able to *reason mathematically* and become confident *problem solvers*. We want to provide our children with rich learning experiences from which they can derive enjoyment and a fascination with Maths. We would like our children to experience a sense of awe and wonder as they solve a problem for the first time and discover different solutions to make links between other areas of Mathematics. We want our children to develop a deep understanding of the subject through a concrete, pictorial and abstract approach in teaching.

Intent

At Farnborough Road Infant School we believe that Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It enables children to understand relationships and patterns in both number and space in their everyday lives. Our Mathematics curriculum aims to promote high expectations in teaching and learning with an emphasis on developing a strong sense of number and place value. We believe in fostering a ‘can do’ attitude amongst the children where every child can see themselves as a mathematician.

We intend on delivering a curriculum which:

- Allows children to be a part of creative and engaging lessons that will give them a range of opportunities to explore Mathematics following a mastery curriculum approach.
- Gives each pupil a chance to believe in themselves as mathematicians and develop the power of resilience and perseverance when faced with mathematical challenges. We want children to develop capability and confidence in using and applying mathematical knowledge, concepts and skills.
- Engages all children and entitles them to the same quality teaching and learning opportunities.
- Sequences learning so that all children gain confidence, develop within themselves a security to adventure further and strive to reach their potential.
- Consistently emphasises and develops the use of mathematical vocabulary so children are confident talking about Mathematics, can discuss different strategies, share their ideas, apply what they know and learn from mistakes.
- Encourages the effective use of Mathematics as a tool in cross-curricular activities.
- Helps to develop an appreciation of mathematical pattern and the ability to identify relationships.

Implementation

Planning

Mathematics is a core subject. We teach the programmes of study for Mathematics from the Primary Curriculum 2014 as the basis for implementing the statutory requirements. Our mastery approach to the curriculum is designed to develop children's knowledge and understanding of mathematical concepts from the Early Years through to the end of Y2.

Our long and medium-term plans are adapted from the Primary Curriculum 2014 and Early Years Outcomes containing the Statutory Requirements Age Related Expectations. We also incorporate elements from the White Rose Hub planning documents to ensure complete coverage of the strands of Mathematics. Weekly planning documents ensure objectives are covered for each year group and that we are planning to the three key principles to deepen children's understanding (fluency, reasoning and problem solving). These plans provide teachers with exemplification for Maths objectives and are broken down to support a CPA (concrete, pictorial and abstract) and mastery approach to Mathematics. They support a practical approach to teaching and learning, help develop the idea of depth before breadth and promote pupils working together as a whole group, applying their skills individually.

These plans are reviewed by the subject leader and informal dialogue will take place with key stage leaders. The activities in Mathematics are planned so that they build on the children's prior learning. Whilst we give children of all abilities the opportunity to develop their skills, knowledge and understanding, we also plan progression so that there is increasing challenge. Weekly plans are evaluated at the weekly year group meeting.

Teaching and Learning

The children are taught using a wide variety of techniques in various learning styles. Our principal aim is to develop children's mental fluency, reasoning and problem solving skills, mathematical vocabulary and understanding. The calculation policy is used within the school to ensure a consistent approach to teaching the four operations over time.

At the start of each new topic, key vocabulary is introduced and revisited regularly to develop language acquisition, embedding as the topic progresses.

During our daily lessons, we encourage children to ask, as well as answer, mathematical questions and explain their thinking. The mastery approach to the teaching of Mathematics incorporates the use of concrete materials, pictorial jottings and more abstract calculations to help children explore and demonstrate mathematical ideas. Reasoning and problem solving are integral to the activities children are given to develop their mathematical thinking.

Lessons involve elements of:

- Instruction – giving information and structuring it well
- Demonstrating – showing, describing and modelling mathematics using appropriate resources and visual displays
- Explaining and illustrating –giving accurate and well-paced explanations;
- Questioning and discussing;
- Application and Consolidation
- Reflecting and evaluating responses –identifying mistakes and using them as positive teaching points
- Summarising – reviewing Mathematics that has been taught enabling children to focus on next steps.

In the Foundation Stage children are given the opportunity to develop their understanding through a combination of short, formal teaching as well as a range of planned structured play situations, where there is plenty of scope for exploration. Nursery and Reception Classes have daily practical mathematics sessions using 'EYFS, Development Matters and ELGs'. They make use of the outdoor learning environment to enrich their learning experiences and deepen understanding at all levels.

Children with SEND / Equal opportunities

At Farnborough Road Infant School we respect difference, value diversity and embrace equality and fairness for all.

Our school values and inclusive curriculum ensure that all pupils reach their full potential. Children with additional needs are included in whole class lessons and teachers provide scaffolding and relevant support as necessary. For those children who are working outside of the year group curriculum, individual learning activities are provided to ensure their progress.

Children who are eligible for Pupil Premium Funding will receive necessary support to enable them to make expected or better than expected progress.

Mathematics Intervention

Farnborough Road Infant School adopts a 'keep up not catch up' approach to supporting those children who need extra help to understand key objectives covered. This is a 'fast response' approach to intervention which aims to correct any misconceptions/fill gaps from that particular day's lesson so that the child may move forward in their learning the following day. 1:1 intensive 'short burst' support may be delivered during the school day as appropriate.

Links to parents' extra-curricular activities

Parents are invited into EYFS classes during "Stay and Share" in order to understand how we teach Maths in the Early Years and access Maths through the continuous provision with their child. In KS1, parents are invited to 'Stay and Learn' where they take part in their children's Mathematics lesson. Calculation methods used by the school are shared with the parents along with the Year 1 and 2 targets and end of year expectations.

Assessment, Reporting and Recording

Teachers assess children's work in Mathematics as part of every lesson helping them to adjust their daily plans and matching these closely to the teaching objectives. Written or verbal feedback is given to help guide children's progress. The children know this as 'Next Steps' and recognise that these are crucial in supporting them as they move on in their learning. Children are encouraged to talk about their work and make judgements about how they can improve their own work and what their next steps will be. Formative assessment also informs planning to ensure progression. Use of White Rose Hub, bespoke school formulated tests and DFE assessment materials in KS1 highlights strengths and weaknesses in mathematical learning. Gaps in learning are identified and targeted teaching takes place to ensure that children make progress. Children's progress is tracked closely (see individual targets in books) and attainment is stored digitally using Arbor in EYFS and KS1.

In Key Stage One progress towards the Expected Standard is shared with the children and the parents on the 'Going for Green' assessment sheets. At the end of Key Stage 1, children are formally assessed by Statutory Tests, which support Teacher Assessments in Mathematics.

All parents receive an annual report on their child's progress, including Key Stage One Assessment outcomes, and have the opportunity to meet the teacher to discuss the report. All children regularly receive Mathematics homework which helps inform parents of the type and level of work being done in school.

The Maths Leader has a clear role and overall responsibility for the progress of all children in Maths throughout the school. Working with SLT, key data is analysed and regular feedback is provided to inform on progress and future actions.

Impact

Mastering Maths means pupils acquiring a deep, long-term, secure and adaptable understanding of the subject. Our children have more confidence and ability to recognise relationships and make connections in Maths lessons. They are able to represent a mathematical concept or skill in multiple ways using the correct mathematical language, demonstrating mastery.

School standards remain consistently high. All children make measurable progress against their own individual targets. They have developed a Growth Mindset and understand that it is OK to be wrong because the journey to finding the answer is important.

Feedback and targeted support help children in striving to achieve their potential ensuring a greater proportion of children remain on track.

Maths books demonstrate a wide range of quality activities evidencing fluency, reasoning and problem solving. Children show a high level of pride in the presentation and understanding of work recorded and are confident to talk about their mathematical learning and how they can move forward.

Updated February 2023

This policy will be reviewed regularly

Signed _____ **Date** _____ **Headteacher**

Signed _____ **Date** _____ **Chair of Governor**