

Maths Curriculum Document

Intent

At Greenfield, we aim to produce confident and independent mathematicians who have the skills and resilience to succeed in their mathematics through school and into later life.

Through our mastery curriculum, pupils will acquire and consolidate the core mathematical facts and concepts, enabling them to become fluent mathematicians. Pupils will make rich connections across mathematical ideas, going deeper into these concepts to consolidate understanding, building on previous knowledge and skills. They will be provided with opportunities to practise and revisit in order to further develop these skills, and deepen their understanding.

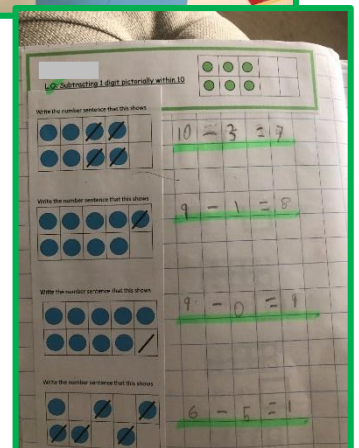
Reasoning will be at heart of our curriculum, allowing children to talk about their learning and to develop this deeper understanding of the underpinning elements of mathematical thinking.

We aspire for all children to enjoy mathematics and relish the challenges it poses. We follow the statutory requirements of the National Curriculum with all children supported to access appropriate learning through lesson design, use of resources and scaffolding. Those who grasp concepts rapidly, are offered rich problems before any acceleration through new content.

Children will leave Greenfield with the skills and confidence to be able to apply their mathematical knowledge in everyday situations in order to be successful in life beyond our school.

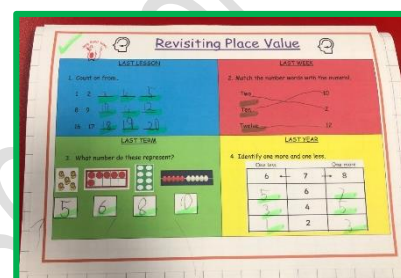
Implementation

- Maths is taught every day for at least 1 hour with additional practise sessions included as appropriate. In EYFS, a mix of adult led and teacher led activities are put together for children which they then participate in through their continuous provision.
- White Rose is used as a basis for curriculum planning to ensure full curriculum coverage which builds progressively through each year group. Teachers are expected to build on this using other resources (such as Nrich and Third Space Learning) to provide a rich, balanced and responsive curriculum for their class' own requirements.
- Lessons provide opportunities for children to explore concepts, following the CPA approach in all year groups. Manipulatives and pictorial representations allow for all children to delve deeper and secure stronger understanding to support and improve their grasp of abstract concepts and methods.
- Children practise key mathematical skills (e.g. times tables, calculation methods etc.) daily in order to improve speed,



accuracy and efficiency and to lower the cognitive load when tackling more advanced problems and challenges. This helps children to move these key facts and skills into their long term memory.

- Reasoning is explicitly planned for and children are supported with this by using sentence stems which allow them to structure their answers in clear terms.
- A range of interactive resources are used by children to support their learning; TT Rockstars and Freckle motivate and engage children both in school and at home whilst allowing them to challenge themselves and sharpen their key skills.
- Lessons are planned and designed by identifying what the children need to know by the end and working back through the small steps they will need to secure to achieve this, both in terms of the unit as a whole, and each individual lesson. Teachers understand the progression of skills (which are detailed in the curriculum progression map) in each area and ensure the pre-requisite knowledge is secured before moving children on to any new learning using methods such as pre-teaching, the Frayer Model and low-stakes quizzing.

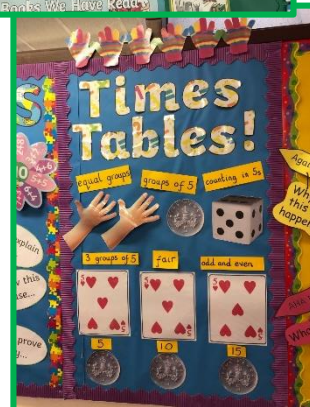


- The lessons follow the I, we, you structure with high-quality teacher modelling leading to small group tasks which build to provide the knowledge required for independent work. Ongoing assessment is employed throughout the teaching phase and lessons adapted appropriately to meet the needs of the children.
- Through the use of intelligent questioning (e.g. always, sometimes, never; odd one out; true or false), teachers and pupils explore and discuss misconceptions which commonly occur and plan opportunities to explore this.

- Children have opportunities to peer and self-assess their work in order to help them to understand where and why mistakes have occurred.
- Maths homework is set weekly in order to help consolidate learning from class. This provides opportunities to practise skills learnt recently and previously as well as exploring knowledge prior to the commencement of a new unit. This allows parents and carers to share in the learning that their child is doing.



- Times tables are a major whole-school focus and all classes are expected to work regularly with their class on recall as well as carrying out three specific lessons to embed and support understanding per half term. The progression is detailed in appendix 1. This work is supplemented with regular homework including the use of TT Rockstars and Freckle.



- Children work through the curriculum at broadly the same rate, investigating the exploring the concepts together. Through partner talk and use of

concrete and pictorial scaffolds, they develop their understanding of each small step before completing independent work. Rapid graspers move quickly on in their learning, deepening their understanding whilst others are supported in a variety of ways including scaffolding, manipulatives and adult support.

- Teachers identify clearly the key steps required to succeed in lessons and support children to understand these through the use of learning walls which are in every classroom and show the current learning alongside other key pieces of information which are useful in a variety of topics.
- Children with SEND work through bespoke small steps to strengthen their core skills.
- A variety of interventions are employed by teachers to support learners in accessing and succeeding in maths. These include pre and post-teach groups as well as focussed work on specific maths facts which are required to access and succeed.
- Maths is a cross-curricular subject and these links are explored when the opportunities arise such as data in science and measurement in D&T and PE.



EYFS

Number fluency is continually developed within early years. Children participate in short maths sessions daily and are given time to explore mathematical concepts, test ideas, develop their understanding and practise taught skills through play. Maths can be found in all areas of our provision and children experience it on a purposeful and meaningful context within their play and daily routines. The mud kitchen, water play, construction areas, sand pit and domestic role-play are just some of the areas in which children can explore number, shape, space and measures. Children are encouraged to use their mathematical understanding and skills to solve real-life problems and practitioners are trained to identify and extend opportunities to foster this.

Impact

Our teaching of, and curriculum for, mathematics will lead to good progress over time across key stages relative to each individual child's starting point. We aim for the vast majority of children to leave Greenfield having attained the expected standard in mathematics and with the confidence to apply this to their future learning and lives after leaving our school. The mathematical facts and concepts they have acquired will allow them to work successfully and efficiently through the Key Stage 3 curriculum and beyond including real-life scenarios they will encounter as they grow. The rich and broad curriculum aims to develop confident and enthusiastic learners who appreciate the importance and application of maths in everyday life.