

Maths Policy

Meare Village Primary School



Subject Lead:	Bea Taylor
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Approved by:	Headteacher
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Last reviewed on:	July 2023
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Introduction

The National Curriculum states that:

“Mathematics is a creative and highly interconnected 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.”

At Meare Village Primary School we see mathematics very much as a multi-discipline, cross curricular, interconnected subject which should encourage creativity. We want the children to see mathematics as being relevant to their world and applicable to everyday life as well as being something that they will need as they move on through their school life and ultimately to the world of employment. To that end, a high-quality, inter-related and creative mathematics experience should be one that develops the children’s ability to think mathematically and one which allows them to apply the tools to which they have been exposed in a variety of ways.

Our emphasis is to ensure that all children:

- become **FLUENT**
- **REASON** and **EXPLAIN** mathematically
- can **SOLVE PROBLEMS**

This means that children need to be regularly exposed to opportunities involving increasingly complex problem solving which allows them to apply their Mathematics knowledge. In doing so they should be encouraged to develop an argument and line of enquiry which they can prove and justify using mathematical vocabulary. This includes the ability to break down problems, both routine and non-routine, into a series of steps.

Aims and Objectives

Our aim at Meare is for all children to enjoy mathematics and have a secure and deep understanding of fundamental mathematical concepts and procedures when they leave us to go to secondary school. We want children to see the mathematics that surrounds them every day and enjoy developing vital life skills in this subject.

We want to teach mathematics in a way that:

- delivers mathematics in line with National Curriculum guidelines and the curriculum for the EYFS
- ensures the delivery of mathematics is filled with cross curricular opportunities

- creates a lively, exciting and stimulating environment in which the children can learn mathematics
- promotes the concept that acquiring mathematics knowledge and skills provides the foundation for understanding the world around them
- develops mental strategies
- encourages children to use mathematical vocabulary to reason and explain both verbally and in writing
- allows time for partner talk in order to stimulate and develop a curiosity for mathematics
- challenges children to stretch themselves and take risks in their learning
- creates a sense of awe and wonder surrounding mathematics
- ensures the EYFS children are given opportunity to develop sound mathematical understanding within their appropriate developmental milestones
- ensures children in Key Stage 1 are secure in their understanding of number and number relationships

Curriculum Design

At Meare, we follow the White Rose Maths long term plan supplemented by the NCETM Professional development materials to support our teaching and ensure that we cover all aspects of the requirements of Curriculum 2014 for mathematics and the EYFS curriculum 2021. In KS1 we are also part of the Maths Hub and NCETM 'Mastering Number' programme. We supplement these maths schemes with 'Mastering the Curriculum' and the Gareth Metcalfe resources for reasoning. Additionally in KS2 the children use 'Busy Ants' for fluency practice. We also use the Ashley Downs Times Tables programme and 'TT Rockstars' and in KS1 'Numbots' to ensure that the children are fluent and confident in their Times Table knowledge and that children in year 4 are ready for the Times Table assessments (MTC).

We believe it is important that children are allowed to explore mathematics and present their findings not only in a written form but also visually; to that end the school has adopted the CPA approach: concrete, pictorial, abstract. This allows the children to experience the physical aspects of mathematics before finding a way to present their findings and understandings in a visual form before relying on the abstract numbers. Our school Calculation Policy supports this process.

Planning

Teachers plan using the White Rose Maths long term plan for all year groups from Reception to Year 6. Long and Medium term planning is available via the White Rose Maths website and is stored on the Shared planning folder on the google drive. A

variety of teaching methods are used across the school and within classes throughout the year, depending on what is most appropriate for the age and stage of the children.

Across a range of lessons, children will engage in mathematical discussion (talk partner or group work), investigations, problem solving, practical experiences and written methods. In EYFS and KS1, the NCETM Mastering Number programme is used to support fluency development and mathematical thinking.

Maths is celebrated in our fortnightly newsletter where we detail the TT Rockstars leaderboard results, celebrate progress and achievements throughout the school.

Assessment

In order to inform planning, teachers regularly track the children's progress. Formative assessment is used together with termly end of unit NFER assessment. This summative assessment will be used in conjunction with all other formative assessments to track progress, identify next steps and inform future planning. Children are provided with feedback in accordance with the school's marking policy. Teachers enter termly summative maths data onto Sims to allow the Maths subject leader and the SLT to monitor maths standards across the school.

Early Years Foundation Stage

Children in reception are taught key mathematical concepts and develop number sense using a hands-on practical approach. There are many opportunities for children to manipulate objects, to support their understanding of quantity and number. The CPA approach is used when teaching children key mathematical skills. Mathematics in the early years provides children with a solid foundation that will enable them to develop skills as they progress through their schooling and ensures children are ready for the National Curriculum. White Rose Maths NCETM 'Numberblocks' and the NCETM Mastering Number programme are used to support adult-led sessions and enhance small group work as appropriate.

Resources and Displays

Each classroom is well resourced with materials to support the delivery of mathematics with some larger, shared resources being kept in the Maths cupboard. Maths working walls are used within the school to support children's understanding and development of concepts currently being worked on in class.

Inclusion

In line with the School's Inclusion Policy, each child will have an equal entitlement to all aspects of the mathematics curriculum and to experience the full range of activities. Therefore, in delivering mathematics, care will be taken to ensure that a variety of learning styles are accessed and teaching methods adopted.

Intervention groups take place both within the lesson and outside of timetabled sessions. Intervention may be delivered by the teacher or teaching assistant and may involve individual or small group work. Intervention is for any learner that is deemed in need of support in a particular concept whether in order to 'catch up' or extend learning to a greater depth.

CPD

The Mathematics Subject Lead has termly update meetings with 'Mathstopia' – a local mathematics advisory service. The Maths lead then feeds back to the rest of the staff about important developments and updates within the subject. The maths lead also meets regularly with other maths leads within the CLP, in order to collaborate, moderate and share best practice. All teaching staff have the opportunity to attend CPD in line with school policy and attend all in-house training. HLTAs and TAs are trained in house but also have access to external training where there is a need to do so. CPD delivered reflects the needs of staff and children within the school, based on conversation and data analysis.

Monitoring

The Maths subject lead monitors standards across the school by carrying out regular book looks, learning walks, discussions with pupils, observation of practice, analysis of data. In this way the maths subject lead is aware of maths standards across the school and is able to identify where support is required and source/provide appropriate professional development.

Please also refer to the School Calculation Policy

