



Burbage C of E Infant School



Maths Policy

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The governing body adopted this policy:

Chair of Governors:

Signed:

Date:

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1. Our vision and values



Loving

We all belong to the Burbage Church of England Infants extended family - school, church, community. We all care for everyone within it. We believe everyone can be a good friend.

*“Love the Lord your God with all your heart and with all your soul and with all your mind.”
Matthew 22:37*

Living

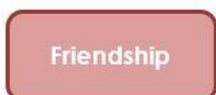
We work hard to learn to live together and to be the best we can. We celebrate everybody's strengths and embrace each other's differences, respecting all and living honest lives together.

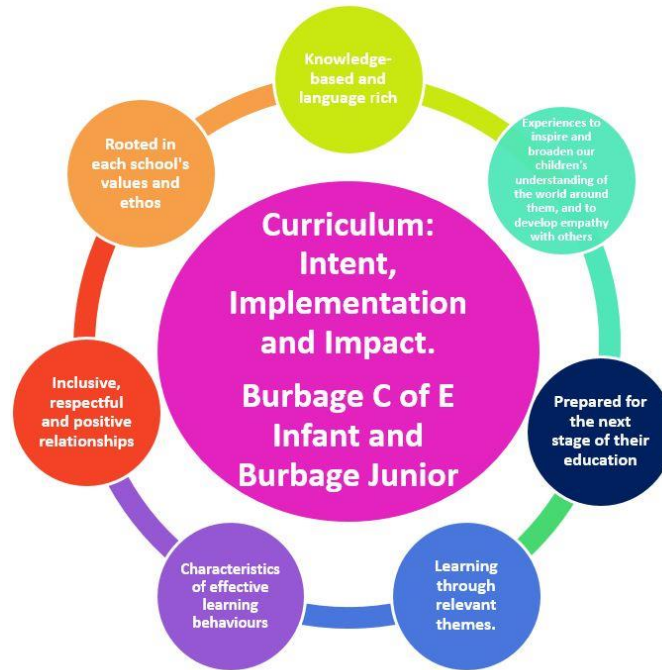
“Love your neighbour as you love yourself.” Luke 10:27

Learning

Learning is amazing and we all strive to discover the next exciting adventure. We all believe that we can and if we can't now, we will soon.

“Everyone who hears these words and puts them into practice is like a wise man who built his house on the rock.” Matthew 7:24





Our school vision serves as the foundation upon which all aspects of the school's ethos, culture, and teaching practices are built. It outlines the core principles and beliefs that guide the behaviour and interactions of children, staff, and the wider school community. When it comes to the Maths Policy, our school vision underpins it in several ways:

- Inclusivity and respect
- Collaboration and teamwork
- Resilience and perseverance
- Excellence and high expectations
- Critical thinking and problem solving

Overall, the vision of our school serves as a guiding framework that shapes the implementation of the Maths Policy, ensuring that mathematical education aligns with the broader values and goals of the school community.

2. Intent

This policy is carried out within the context and spirit of the school's vision statement and distinctively Christian values.

This document is a statement of the aims, principles and strategies for the teaching and learning of Mathematics at Burbage C of E Infant School. Mathematics is a core subject and this policy has been written in accordance with its statutory requirements.

- We aim to ensure that all pupils become responsible citizens, successful learners and confident individuals. All pupils can achieve in mathematics! At Burbage C of E Infant School, it is our belief that pupils are not learning to be mathematicians, but that they are mathematicians. *“Mathematics is a creative and highly inter-connected discipline...a high-quality mathematics education should provide 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.”* (National Curriculum for Mathematics, 2014).

- We aim to provide vibrant experiences to make learning real and to open their minds to the wider world beyond their own. We aim to equip pupils with the tools to understand Maths. These tools include reasoning, problem solving and the ability to think in abstract ways;
- We aim to enable the children to contribute fully within their school and the wider community, now and in the future. We strive to help children develop positive relationships, high expectations of behaviour; enabling everyone to be the best possible version of themselves. Mathematics is integral to all aspects of life; with this in mind, we strive to ensure that our children develop a healthy and enthusiastic attitude towards mathematics that will stay with them and support them in the next stage of their education and beyond. At each stage of learning, children are actively supported to reach their full potential as mathematicians, while at the same time providing a language rich curriculum to develop deep understanding and cultural capital;
- We aim to impart a range of knowledge and skills to be equipped for the next stage of their education. The National Curriculum for Mathematics aims to ensure that all pupils:
 - become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils 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.

3. Implementation

All teachers follow a termly overview plan and follow the White Rose Maths Scheme of Learning from the White Rose Maths Hub. A typical maths lesson provides the opportunity for all children, regardless of their ability, to become confident and capable learners. We are committed to building on prior learning and enabling our children to demonstrate a deep, conceptual understanding of each topic that they can develop over time. They are encouraged to develop fluency in their recall of key facts and a whole school approach to the teaching of calculation strategies is deployed across the school. This ensures a consistent and progressive approach and prepares our children for the next stage of their learning. Reasoning and problem-solving skills are explicitly taught to enable children to become independent learners who are prepared to take risks. To make the learning relevant, cross-curricular links are made wherever possible and children are encouraged to apply skills from all areas to complete real-life challenges and give learning a sense of purpose.

To provide adequate time for developing key skills in fluency, reasoning and problem solving, each class teacher will provide at least five mathematics lessons per week. These may vary in length but will usually last for about 45 to 60 minutes. Additional mathematics may be taught within other subject lessons when appropriate. Class teachers provide high quality maths lessons ensuring that there is emphasis on direct whole-class teaching, groups/partner work and independent work. We use a range of approaches (concrete, pictorial and abstract methods) following the White Rose scheme of work, teaching mathematical

concepts through small steps. Staff are expected to teach and model correct mathematical language, which scaffolds children's reasoning and explanation skills – sentence stems are used to develop this.

4. Maths in Early Years

In EYFS we follow the EYFS framework. Teachers ensure the children learn through a mixture of adult led activities and child-initiated activities both inside and outside of the classroom. Mathematics is taught through an integrated approach using material from NCETM Mastering Number and White Rose Maths. The children have a wide range of continuous provision available to them throughout the year. The adults model the use of these resources and the appropriate mathematical language as they support the children in their play.

Across EYFS and through to KS1, we have implemented a new and exciting Mastering Number maths project. Our overarching aims are for children to:

- cover all of the number work that will support the children to meet the expected level;
- develop the learning trajectories that build children's understanding and help them make connections between different mathematical concepts;
- be confident in communicating their ideas;
- develop a positive attitude towards maths and be willing to 'have a go'.

5. Maths in Years 1 and 2

In Years 1 and 2, the focus of maths is to ensure the children develop confidence and mental fluency with whole numbers, counting and place value. This often involves working with numerals, words and the four operations (+ - x ÷). The children should be precise in using and understanding place value and know number bonds to 20. The children also develop their ability to recognise, describe, draw, compare and sort different shapes. The children will use a range of measures to describe and compare different quantities (such as length, mass, capacity/volume, time and money).

Burbage C of E Infant School is taking part in the Mastering Number programme in the Teaching of Mathematics (NCETM) project to support the teaching of basic maths skills in our school. This project aims to secure firm foundations in the development of good number sense (a deep understanding of number). Each class, in KS1, has a daily 'Mastering Number' session in addition to their daily Maths lesson. Over the year, the children will experience using a range of resources and representations, including a small abacus-like piece of equipment called a Rekenrek.

The impact of our Maths curriculum is that at the end of Key Stage 1 our pupils achieve and make progress in line with other pupils nationally, evident through:

- Fluency in their recall of key number facts and procedures;
- Accuracy in the formal calculation methods for all four operations;
- The flexibility and fluidity to move between different contexts and representations of mathematics;
- The ability to recognise relationships and make connections in mathematics;
- The confidence and resilience to reason mathematically and solve a range of problems.

Spoken Language

Effective communication skills are crucial for success in all aspects of life. We aim to promote pupils' speaking and listening abilities by providing regular opportunities for purposeful talk, both in pairs and within larger groups. Encouraging pupils to listen actively and respond appropriately to others. Developing pupils' confidence in presenting ideas and opinions to various audiences. The teaching and implementation of the Spoken Language curriculum at Burbage Infant School is based on the progression of the National Curriculum objectives (see Spoken Language Progression document), and these objectives are included in all curriculum subjects.

In mathematics we aim to encourage children to be confident speakers by explaining the process they have followed to solve a problem etc. As part of the Mastering Maths project which we are following the use of stem sentences is very important and the system of " I say .you say " is very much embedded and crosses over into daily Maths lessons. We aim for children to be confident speakers with regards to maths so they are prepared for their next stage of their education.

Mathematical vocabulary encompasses a wide range of terms that children will need to understand and use fluently to communicate and solve mathematical problems effectively. Mathematical vocabulary taught at Key Stage 1 will include:

- Number and the four operations (addition, subtraction, multiplication, division minuend, addend and subtrahend)
- Geometry (2D and 2D shapes)
- Measurement (weight, length, height, volume, capacity and mass)
- Data handling (statistics, tallying, pictograms)
- Fractions (half, quarter unit fractions, non-unit fractions and whole)
- Time (o'clock, half past, quarter past and to)

These terms provide a foundation for understanding and discussing mathematical concepts and procedures at Key Stage 1.

6. Inclusion

Children with additional needs are supported by using practical resources and differentiated activities where needed. They are also further supported by additional support staff whenever possible. Where applicable, children's provision maps will incorporate suitable objectives from the National Curriculum or the EYFS curriculum and teachers keep these objectives in mind when planning work. In addition to quality first teaching, interventions also take place during the afternoons and focus on those children who may need more specific targeted input.

7. Impact

Assessment is an integral part of the maths curriculum and not an addition to it. Children's work in mathematics is assessed from three aspects:

- 1) Informal, formative assessments are made continually by questioning the children, observing and monitoring their work. These short-term assessments are closely related to the learning objectives for the lesson and help inform next steps.

- 2) Periodic assessments take place at the end of a unit – we use White Rose Maths end of block assessments to check progress and understanding of content covered. This information also informs interventions.
- 3) Summative assessment is less frequent - this is the use of tests or more formal assessments to find out what children have learnt.

A whole school tracking system is used to closely monitor children's progress throughout the school. Teacher assessments are entered termly and are closely analysed to identify children working at greater depth, expected or who are at risk of not reaching the expected level. An appropriate intervention is then put in place to close any gaps. We see the relationship with parents as very important in supporting their children's mathematical skills. Parents receive an end of term/year report which provides information on their child's outcomes and progress.

Staff development and Role of the Maths Lead

The Maths Subject Lead keeps informed about current developments in the subject and disseminates relevant information and advice to all staff, supporting them in the teaching of Maths. They provide a strategic lead and direction for the subject in the school; the Maths Action Plan priorities are part of the School Development Plan. The lead organises resources and co-ordinates the purchase and organisation of resources. They also ensure teachers are aware of staff development opportunities, eg. The 'Mastering Number' programme.

8. Homework

In years one and two homework will also include mathematics in some form. Year 2 also have a weekly maths challenge (sent via Class Dojo) which embeds what has been taught that week.

9. Monitoring and evaluation

Maths is monitored by the Maths Lead and SLT. The Maths Lead carries out monitoring activities (pupil interviews, lesson observations/walkthrough observations, book scrutiny) according to the needs of the school, as identified in the School Development Plan. The impact on most of our children is clear progress in all areas of Maths. At the end of KS1 the majority of our children have made good progress from the start of Foundation Stage. With the progression of maths skills, children are becoming more confident mathematicians. By Year Two children have been introduced to most areas of mathematics and are familiar with them so they can focus on fluency and problem solving, using a wide vocabulary and developing their stem sentences both orally and written down. By Year Two most of our children are confident learners and have well-developed mathematical strategies. We aim for children to leave Burbage Infant School as happy, confident learners, who have developed a love of maths, with the key skills and knowledge necessary for the next stage of their learning. They have high aspirations and are confident in the art of problem solving.

10. Equality and diversity

At Burbage Infant School we believe that valuing diversity means actively recognising the strengths, talents and needs of every individual and every community. We nurture the potential of all and maximise the opportunities for all. We know that, despite legislation

(Equality Act 2010), discrimination still exists, and it is for us to address this strongly, when and if it does. We aim to instil in our children a tolerance, understanding and respect of all cultures, faiths, disabilities and ways of life and living; to nurture cultural, religious and linguistic diversity; to be aware of and support positively the languages and dialects spoken by our children and the adults in the school and at home. We ensure that programmes of work cater for the individual needs of our children and that the curriculum is modified appropriately whenever appropriate; to ensure that the needs of children with additional needs, including gifted children are catered for – and those of adults. As members of staff we realise that it is important to identify the needs of children with special educational needs or disabilities at the earliest opportunity so that suitable learning programmes and strategies can be devised, and the curriculum modified so that they can be effectively used in meeting the above needs. Individual pupil progress is monitored and assessed regularly, and strategies are adapted accordingly to support individual children with learning needs. We take children on school trips where they are able to appreciate the community in which they/we live and they can experience places they may not have the opportunity to visit outside school, eg. local places of worship.