



# **Burscough Bridge Methodist Primary School**

## **Mathematics Policy**

## **Mission Statement**

**‘Let Your Light shine to all’**

**(John Wesley)**

**Through exciting opportunities in lessons and the wider curriculum our children become well rounded, caring changemakers in our world. Each child is at the heart of all we do to ensure they become the best they can be and are meant to be.**

## **Intent**

The intent of our mathematics curriculum at Burscough Bridge Methodist School is to provide a curriculum that is accessible to all and will maximise the development of every child's ability, enabling them to fulfil their potential. We aim to ensure that children recognise the importance of mathematics in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. Our aim is that all children will develop an enjoyment of mathematics and experience a success in the subject with the ability to reason mathematically. We want children to realise that mathematics has been developed over centuries and that it is essential to everyday life, critical to science, technology, engineering and necessary for financial literacy and most forms of employment. We are committed to developing children's curiosity about mathematics and its power.

## **Aims**

- Allows children to be part of creative and engaging lessons that will give opportunities to explore mathematics.
- Gives each child a chance to believe in themselves as mathematicians and develop the power of resilience and perseverance when faced with mathematical challenges.
- Recognises that mathematics underpins much of our daily lives and therefore is of paramount importance in order that children aspire and become successful in the next stages of their learning.
- Make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.
- Provides equal opportunities for children to apply their mathematical knowledge to other subjects.
- Is in line with the expectations in the National Curriculum 2014.
- For children to have initiative and motivation to work both independently and in cooperation with others
- To be confident in communication of maths where pupils ask and answer questions, openly share work and learn from mistakes

## Implementation

- Key vocabulary is introduced and revisited regularly during each topic to develop language acquisition, embedding as the topic progresses.
- All lessons will begin with revisiting prior knowledge to support retrieval practice and develop long-term memory.
- Children are taught through modelling and have the opportunity to develop their knowledge and understanding of mathematical concepts. The mastery approach incorporates using objects, pictures, words and numbers to help children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding at all levels.
- Children who have shown their understanding at a deep level will have opportunities to apply these skills in a greater depth activity. This should be challenging and ensure children use more than one skill to be able to answer the mathematical problems.
- Reasoning and problem solving are important in developing mathematical thinking.

## Curriculum and Subject Content

The National Curriculum sets out year by year programmes of study for key stages 1 and 2. This ensures continuity and progression in the teaching of mathematics. Teachers are responsible for ensuring that all relevant statutory content is covered within the school year.

The EYFS Statutory Framework sets out to develop a strong grounding in number so that all children develop the necessary building blocks to excel mathematically.

The EYFS Framework in relation to mathematics aims for our pupils to:

- Count confidently and develop a deep understanding of the numbers to 10, the relationship between them and the patterns within those numbers.
- Develop spatial reasoning skills across all areas of mathematics including shape, space and measures.
- Develop positive attitudes and interests in mathematics.

## Teaching and Learning

Teaching in maths should develop children's understanding of important concepts, techniques and recall of facts enabling children to learn independently.

Careful planning and preparation ensure that the school children engage in:

- practical activities and games
- problem solving to challenge
- individual, paired, group and whole class learning
- open and closed tasks
- range of methods of calculating e.g., mental, pencil and paper
- working with computers as a mathematical tool.

## **Planning**

### **Long term Planning**

The National Curriculum for Mathematics and the statutory framework for the early years foundation stage provide the long term planning for mathematics taught in school.

### **Medium term planning**

In school we use mixed aged planning from Hamilton Trust, NCETM, NRICH and Teach Active for medium term planning documents.

These schemes of work provide teachers with exemplification for maths objectives and are broken down into fluency, reasoning and problem solving which are key aims of the National Curriculum. There is a real commitment to developing the understanding of number.

### **Short term planning**

The above schemes of learning support daily lesson planning which are built on considering the needs of children in each class with thought to where children are now and what steps they need to take next.

## **Lessons**

All classes have a daily mathematics lesson where the emphasis is to make teaching interactive engaging the children to talk about mathematics.

Lessons involve elements of

- instruction – giving information
- demonstration – showing, describing, modelling mathematics using appropriate resources and visual aids
- explaining and illustrating
- questioning and discussing
- consolidating
- reflecting and evaluating
- summarising and identifying next steps

### **Number:**

As a school we have recognised the importance for children to have a clear understanding and knowledge of number. As a result of this during the autumn term we have a real emphasis on developing the children's knowledge and skills in this area. This is continued into the spring and summer terms with one to two lessons a week being set aside purely for number work.

We also have a daily focus on mental maths with the children working on the quick recall of number and times table facts using resources such as 'Big Maths', 'Times Table Rock Stars' and 'Hit the Button'.

## **Resources**

In order to support the delivery of maths lessons the school has a range of resources available. Within the classroom each set of tables should have maths resources available to the children including basic resources such as number lines, 100 squares, rulers, counters, base 10 etc. Other specific resources are stored in a central resource area.

## **Assessment**

Assessment is an integral part of teaching, and it is a continuous process.

Teachers make assessments of children through:

- regular marking of work
- analysing errors and picking up on misconceptions (short adult led interventions to support children's identified difficulties are quickly put into place).
- asking questions
- listening to discussions
- making observations

Whole school progress meetings are held each term where data is collected for the progress tracker.

## **Special educational needs and disabilities (SEND)**

Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. Where required children's IEP's incorporate suitable objectives from the National Curriculum for mathematics or Development Matters. These targets are worked on within the lesson as well as during intervention sessions. Maths focused intervention in school helps children with gaps in their learning and their understanding particularly of number. These are delivered by trained support staff.

## **More Able Pupils:**

Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. Each lesson provides the more able children the means to greater depth, with these children being offered rich and sophisticated problems as well as exploratory, investigative tasks within the lesson as appropriate.

## **Equal Opportunities**

We aim to create equality of opportunity for all our children, whatever their abilities, background or gender and give them chances to demonstrate what they know, understand and can do.

## **Impact**

- children demonstrate a quick recall of facts and procedures. This includes the recollection of times tables.
- Children show confidence in believing that they will achieve.
- Each child achieves objectives (expected standard) for year group.
- The chance to develop the ability to recognise relationships and make connections in maths lessons.
- Mathematical concepts or skills are mastered when a child can show in multiple ways using the mathematical language to explain their ideas and can independently apply the concept to new problems in unfamiliar situations.
- Children show a level of pride in the presentation of their work.