



Mathematics Policy
Darrington CE Primary School

“Mathematics is a creative and highly inter-connected 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.”

(The National Curriculum for Mathematics 2014)

Our Ethos

At Darrington CE Primary School, we believe that Mathematics is an essential tool for everyday life. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. All learners should become fluent in the fundamentals of mathematics and should be able to reason mathematically and solve problems by applying their mathematical understanding. We endeavour to ensure that children develop an enthusiastic and creative attitude towards mathematics that will stay with them throughout their lives.

Using the Programmes of Study from the National Curriculum for Mathematics we aim to develop:

- An enjoyment and curiosity about mathematics and for children to feel confident to become successful;
- Children’s abilities to use and apply mathematics to solve problems in both the classroom and in ‘real life’ contexts;
- A confidence to communicate ideas in written form and orally;
- Independent and collaborative ways of working, encouraging children to share ideas and solve problems together;
- A wide range of mathematical vocabulary to be modelled and used in the classroom environment;
- The children’s ability to recall mental facts accurately and quickly and using effective written calculation methods;
- Children’s logical thinking, reasoning and ability to problem solve as transferable life skills.

Mastery Statement

Mastery for ALL is our belief at Darrington CE Primary School. Mastery is an ethos and an approach for excellent learning based around developing secure understanding evidenced through skills of reasoning and problem solving. It is therefore our belief that everyone can master maths and the term is NEVER used as a descriptor for those classed as ‘more able’ mathematicians.

Teaching & Learning

Each class teacher is responsible for the teaching of mathematics in their classroom, in consultation with and with guidance from the mathematics subject leader. Throughout Years 1-6, there is a daily mathematics lesson of between 45 and 60 minutes. We follow the White Rose Maths program of study, teaching across three terms in blocks to deepen understanding. Teachers draw on a range of resources to create the best possible learning environment for our pupils, moving the children through the stages of concrete to pictorial and lastly to abstract understanding. Consolidation weeks are also built into each term to revisit outcomes that have been identified as needing further development.

Reasoning is a part of every lesson, and the use of mathematical discussion in whole-class and small group contexts as well as between talk partners, enables the children to verbalise and discuss their understanding. Working Walls and mathematical resources in each classroom allow the children to explore, clarify and apply their learning. Teachers are encouraged to use innovative and creative lesson formats to engage pupils in developing skills using:

- Mental strategies
- Written methods
- Practical work
- Investigations and problem-solving
- Mathematical discussion using precise mathematical language.
- Consolidation of basic skills and routines

Pupils in EYFS learn through a mixture of adult-led activities and child-initiated activities both inside and outside of the classroom. Areas of provision within the classroom support maths, ensuring children are able to access activities throughout the day to practise and develop skills being taught. In addition consistent, daily maths lessons take the

form of direct teaching, which is followed up by enhanced activities placed in areas of provision in the classroom which may be accessed independently or supported by an adult.

Children's Records of Work

Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording. Children are encouraged to use mental strategies before resorting to a written method. All children are encouraged to work tidily and neatly when recording their work. When using squares one square should be used for each digit.

In Y1 and Y2, 1cm square exercise books are to be used. This changes to 7mm square exercise books in Year 3 through to Year 6.

EYFS record informally within the setting. For example on the playground, on whiteboards, using jigsaws and physically ordering numbers. Staff use photographs to maintain records of each child's achievement. Recording in maths books is introduced in the Spring term.

Planning

Years 1-6 use the White Rose Maths scheme of learning for medium term planning. This provides a detailed, structured curriculum which is mapped out across all phases, ensuring continuity and supporting transition. EYFS planning is based on the Early Years outcomes and the Early Learning Goals (Number, Shape Space & Measure).

Short term planning is recorded weekly using the agreed school format. These weekly plans identify the areas of learning and lesson objectives; key vocabulary and resources; teaching input and activities; and deployment of additional adults.

Resources

In order to support the delivery of maths lessons to all children, the school has a range of resources available. Within the classroom maths resources are available to children at all times. These include basic resources such as number lines, 100 squares, rulers, counters, dienes, base 10 counters, numicon, etc. Other specific resources (e.g. balance scales, meter rulers) are available as required and stored in the cupboards in the school staffroom.

We recognise the importance of a stimulating learning environment. The school provides an environment that is rich in a wide variety of print, pictures, diagrams, charts, tables, models and images. Each classroom has a maths working wall with mathematical vocabulary, visual aids and interactive activities where appropriate. This is updated regularly in accordance with the area of maths being taught at the time.

Assessment, Feedback and Record Keeping

▪ **Short term**

Children's classwork is assessed frequently through regular marking, analysing children's errors, questioning and discussion in books and from lessons. Children's work is marked and feedback is given with next steps as in line with the marking and feedback policy. In EYFS, children's attainment and progress is assessed through observations of their independent learning.

▪ **Medium Term**

Each term children in each class are assessed using the White Rose tests. These materials are used alongside judgements from class work and termly PuMA tests to form a teacher assessment for each child against the age related expectations of each year group. These assessments also serve to identify gaps in children's learning that require further consolidation or intervention. In EYFS the children are assessed against the Early Years outcomes statements.

Data is analysed by class teachers and termly meetings are held with the Maths Subject Leader to discuss progress within each class and to identify those who are not making the expected progress, enabling the teacher to discuss any interventions that may be needed beyond quality first teaching. Whole class gaps are also identified and used to inform planning.

Moderation

Moderation by the Maths Subject Leader and the SLT includes book scrutinies, lesson observations, environment walks and pupil voice surveys. We have visits from our School Improvement Partners, who validate our judgements and identify areas for improvement. Also the EYFS and KS1 teachers attend authority moderation meetings where judgements in maths are verified.

Contribution of Maths to teaching in other curriculum areas

Mathematics is a tool for everyday life. It is a network of concepts and relationships and is used to analyse and communicate information and ideas in practical tasks and problems. By making links to other subjects at the initial planning stage we aim to provide real context in which to apply skills taught during the maths lessons.

Inclusion

Children with Special Educational Needs and Disabilities (SEND):

- Within the daily mathematics lesson, teachers provide activities to support children who find mathematics difficult. Children with SEND are taught within the daily mathematics lesson and are able to take part at their level through the support of adults in the classroom and appropriate activities and resources.
- Where applicable children's 'Supporting Me to Learn' plans will incorporate suitable objectives from the Maths curriculum.
- Intervention Groups will take place at times throughout the year, in order to give further support to children working below national expectations.

All children at Darrington CE Primary School have an equal entitlement to access the Maths curriculum and make progress in order to attain the best they can in the subject.

Monitoring Teaching and Learning

This will be undertaken by the Subject Leader and other members of SLT. Areas to be monitored will be decided at the beginning of each term and will be recorded on the Monitoring Calendar so that staff are informed. Results of any monitoring will be fed back to staff quickly and to SLT so that any action required can be carried out effectively.

Roles and Responsibilities

Subject Leader:

- Support teachers in their planning and teaching;
- Lead by example in the way they teach in their own classroom;
- Prepare, organise and lead INSET, with the support of the Head teacher;
- Work co-operatively with the Inclusion Manager;
- Monitor different aspects of maths teaching and learning feeding back to SLT and staff on findings and future actions.
- Attend INSET provided by LA consultants and Maths Hubs;
- Be available to discuss with the head teacher, class teachers, parents and Maths governor the progress of maths in the school.

Class Teachers:

- Deliver a daily Maths lesson which is engaging and motivating, is informed by the National Curriculum for Mathematics 2014 or Foundation Stage Profile, and is accessible to all children.

Children:

- Develop skills, understanding and attainment in Maths through engagement with the lesson, behaviour conducive to learning, independent work and confidence to challenge or ask for help.

Parents / Carers:

- Support their children's learning in maths by taking an interest in their child's progress, encouraging the children to complete maths homework and having a good relationship with the class teacher so that queries and problems regarding maths can be dealt with easily.

Policy title	Mathematics Policy
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Staff responsible	Mathematics Subject Leader/Headteacher
Committee responsible	Pupils and Standards Committee
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