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|  |  | **MURDISHAW WEST COMMUNITY**  **PRIMARY SCHOOL**  **MATHEMATICS POLICY**  **AUTUMN 2024** |

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| Policy Title | Mathematics Policy |
| School/HBC | School |
| This policy complies with Halton LA guidance | NA |
| Linked Polices & Documents | Teaching and Learning |
| Written By | M Jones |
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| Review Date | Autumn 2025 |

**Intent**

**At Murdishaw West Community Primary School, we believe that students deserve a creative and ambitious mathematics curriculum, rich in skills and knowledge, which prepares them well for everyday life. We follow a** carefully designed, planned and organised curriculum, to ensure coverage and progression for every learner.

Our children will be taught Mathematics in a way that ensures progression of skills and follows a small steps sequence to build on previous learning.

Teachers at Murdishaw West Community Primary School have been developing a mastery approach since 2014. Inspired by the exceptional performance of some Southeast Asian countries, school leaders researched the pedagogy and principles of mathematics teaching in this area and have since created an approach to teaching mathematics, to be used alongside supporting materials from White Rose Education. We use small steps in learning to support children’s cognition and adapt teaching to support those with additional needs, ensuring every child experiences success.

**Our hope is for children of Murdishaw West Community Primary School** to become confident mathematicians through varied and frequent practice, developing fluency, mathematical reasoning, and competence in solving increasingly sophisticated problems. Pupils will develop the ability to recall and apply knowledge rapidly and accurately.

**Implementation**

Our curriculum is underpinned by a mastery approach, using a revisit, teach, practise and apply model, to build upon previous learning and embed knowledge and understanding. Concepts are broken down into small connected steps, allowing children to learn from modelling and practise the necessary skills needed to answer a range of problem solving questions. By using White Rose Education to support our maths planning, teachers are able to plan and sequence lessons appropriate to the cohort of children in their care. Lessons are adapted to meet the needs of those with SEND, to ensure children achieve their potential.

Manipulatives and pictorial representations are used to build and scaffold learning, with misconceptions addressed during lessons to ensure that children’s knowledge is accurate. Effective questioning is used to get children thinking critically about a problem and the most efficient ways to work it out. Pupils are encouraged, through exploration, to express their thinking in a range of ways, using deliberate mistakes to prove their answers.

All classes are taught maths on daily basis and in the afternoon our KS1 children take part in an extra lesson called ‘Mastering Number’, which helps them to practise and master their number skills. Our EYFS children embed this practise into their daily lesson, whilst children from years 2 – 6 complete daily times table practise using Times Table Rock Stars.

In classrooms, you can expect to see high levels of pupil engagement and involvement. Lessons usually begin with an interesting and engaging problem to solve and the teacher's role is to make this accessible to all. Pupil talk should be encouraged at every opportunity, enabling peer support, challenge and/or refinement of ideas. Teachers use pupils’ ideas to create a series of class discussions using effective questioning to challenge learning. This helps children to reason and justify their choice of maths used to solve a problem.

Gifted learners are challenged from the outset, being asked to prove or justify their ideas, create real—life authentic problems of their own or seek patterns within the problem/concept being explored. For example, in a year 5 lesson where pupils have an opportunity to practise long multiplication, some pupils will already be secure using this algorithm. In this instance, you are likely to see these pupils being challenged to think of different combinations of numbers that produce the same product (\*\*x\*\*=704). In this way challenge is provided through deepening conceptual understanding rather than acceleration onto new content.

Maths books are used in most lessons. Maths books are used to develop pupils’ communication skills and record children's thought processes, therefore deepening conceptual understanding. Once children have had the opportunity to refine their thinking, they are expected to record this using diagrams/drawings, writing and abstract mathematical notation. Children will then be given the opportunity to practise the concept taught, using additional questions or problems. Children who progress further will be given a task to apply their learning.

Teachers’ expectations of Maths books should be high, as should independence levels.

Our EYFS cohort follows a similar approach to the rest of the school, in that it uses the concrete, pictorial, abstract approach, allowing the children to explore a concept and discuss this to highlight mathematical language and vocabulary. This will then support each cohort in the transition into Year 1, recognising some of the equipment and representations already being used.

**Impact**

Our children enjoy and value mathematics and often talk about what they have been doing in lessons during celebration assemblies. Children will understand and appreciate the value of maths in the context of their personal and adult life. We hope their success in this area will lead to many career opportunities.

Progress in maths is demonstrated through regularly reviewing children’s work to ensure that progression of skills is taking place. Children complete formative assessments throughout each unit of work to allow for feedback to be discussed and action taken. Summative assessments are completed each term. Lesson walks also take place to ensure that children are being given the best opportunities to learn and represent their ideas in a number of ways.

The maths curriculum allows children to consolidate and build upon prior learning, helping them to feel a sense of achievement and success in this curriculum area.

The curriculum will help them to become critical thinkers, with problem solving skills that are transferable through all subjects.