



Intent

The intent of our mathematics curriculum is to provide children with a foundation for understanding number, reasoning, thinking logically and problem solving with resilience so that they are fully prepared for the future. It is essential that these foundations of mathematics are embedded throughout all strands of the National Curriculum. By adopting a mastery approach, it is also intended that all children, regardless of their starting point, will maximise their academic achievement and leave Northowram Primary School with an appreciation and enthusiasm for maths. A mastery approach means that the aim is for children to have a deep understanding of the content for their year group. By 2030, we intend to be in the top 10% of the country for maths with the vast majority of our children meeting or exceeding the aims for their year group. We ensure that we deliver a high quality maths curriculum that is both challenging and enjoyable. We want children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. Our intent is that all children are secure and confident in the multiplication and division facts stated in the National Curriculum for their year group in preparedness for the year 4 multiplication check where the children should be proficient in all division and multiplication facts up to 12×12 . We intend for our pupils to be able to apply their mathematical knowledge to science and other subjects. We want them to know that maths is essential to everyday life and that our children are confident mathematicians who are not afraid to take risks. We also intend to develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.

Implementation

Teaching and learning, content and sequence: our secure understanding of the maths curriculum and subject area helps us to implement maths teaching effectively. For maths, our long term planning follows the National Curriculum 2014. All teachers follow daily lessons from reception through to Year 6 using schemes of learning published by White Rose Maths to plan effectively, producing lessons incorporating fluency, reasoning and problem solving. Our Nursery class follow the Development Matters Guidance and have short, formal maths sessions throughout the week. The White Rose schemes are complimented with additional resources to help develop fluency as well as problem solving. Using prior knowledge as a starting point for all future planning and teaching, we plan lessons which are required for all pupils to make good progress. Lessons are engaging and follow a cycle of planning, to ensure that we can evidence progress over short and long periods of time. Maths lessons are designed with a concrete, pictorial and abstract (CPA) approach, providing our pupils with the scaffolding required to access the learning at all levels. We incorporate daily starters into our maths sessions for children to practise quick recall of facts and procedures. This includes the recall of the times tables. We use Times Table Rockstars for children to practise times tables and take part in competitions to raise engagement and the status of knowing the times table facts. As part of our times table practise, the children are explicitly taught the times tables through a systemic whole class recall teaching sequence. We place a large emphasis on pupil engagement and design lessons which involve all pupils using questioning and modelling at the centre of every lesson. We follow an 'I do, we do, you do' approach allowing teachers to model and children to practise. To implement our intent, we strive to ensure that our children are invested in their learning and are making positive contributions to their lessons. We also supplement our learning at school with providing children with weekly maths homework that links to the learning that the children have worked on at school.

Leadership, Assessment and Feedback: assessment informs the teaching and learning sequence and children work on the objectives they are assessed as being at. Children who not making the required progress are given extra support through booster sessions where possible and support in class in order to meet our intent of developing pupils academically and helping children catch up and keep up. Feedback is given on children's learning in line with our marking and feedback policy. Formative assessment within every lesson helps teachers to identify the children who need more support to achieve the intended outcome and who are ready for greater stretch and challenge through planned questioning or additional activities. In order to support teacher judgements, in years 1 – 6 children are assessed after each block and each term using current and reliable tests in line with the national curriculum for maths (White Rose Maths, Rising Stars or SATs). Analysis of any tests that the children complete is undertaken and fed into future planning. Final, summative assessments are completed at the end of the academic year and help influence the overall judgement reported to parents in the end of year report. The maths leader (Meganne Green) has a clear role and overall responsibility for developing and improving maths across school. They regularly carry out book looks and check-ins throughout the year as well as a formal 'deep-dive' into maths which includes lesson observations, books looks and children's voice.

Impact

Academic results 2023

Reception – 85% of our children in reception met or exceeded their learning goals for maths

Year 2 - 85% of our year 2 children achieved the year group standard in the SATs with 18% exceeding it.

Year 4 - In the multiplication times table check, 79% of year 4 got 20 or more out of 25.

Year 6 - 77% of our year 6 children achieved the year group standard in the SATs with 30% exceeding it.

We believe that a mathematical concept or skill has been mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas and can independently apply the concept to new problems in unfamiliar situations. Children will be able to demonstrate quick recall of facts and procedures including the recollection of the times tables. They will have flexibility and fluidity to move between different contexts and representations of mathematics and the ability to recognise relationships and make connections in mathematics. Children will show confidence in believing that they will achieve and show a high level of pride in their presentation and understanding of their work.