



Picknalls First School

Maths Curriculum Intent Document 2022-2023



Intent

When teaching mathematics at Picknalls, we intend to provide a curriculum which caters for the needs of all individuals. We incorporate sustained levels of challenge through varied and high quality activities with a focus on fluency, reasoning and problem solving. Pupils are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. A wide range of mathematical resources are used and pupils are taught to show their workings in a concrete fashion, before establishing ways of pictorially and formally representing their understanding. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience and acceptance that struggle is often a necessary step in learning. Our wider Mantle is *'Everyone can do Maths.'*

Implementation

At Picknalls Maths is taught as a discrete subject. We recognise that in order for pupils to progress to deeper and more complex problems, children need to be confident and fluent across each yearly objective. We follow the Maths Hub White Rose schemes of learning to ensure that the coverage for the year is completed and as a MAT we have written our own Calculation Policy that is used by all staff and shared with all stakeholders. To support us we have a range of mathematical resources in classrooms including Numicon, Base10 and place value counters. We also use a range of planning resources including those provided by the White Rose Hubs, NCETM, NRICH and Deepening Understanding. Our Maths curriculum is organised into blocks. These blocks are broken down into small achievable steps. White Rose have introduced a new schemes of work for 2022-2023 (Version 3.0) where moved topic areas around between terms and year groups. Wherever possible we follow a CPA approach...

Concrete- all children have opportunity to use concrete objects and manipulatives to help them understand what they are doing

Pictorial- children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems

Abstract- With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

Lessons provide opportunities for children to practise recalling facts (varied fluency) and to engage in reasoning and problem solving. Our Maths teaching provides breadth and challenge. We strive to improve children's recall of important facts with our Weekly Big Maths – 'Beat that' challenges and the children thoroughly enjoy using Mathematical APPs such as Education City, Sumdog and TT Rockstars.

We continuously strive to better ourselves and frequently share ideas and things that have been particularly effective. We also take part in training opportunities and regional networking events. Through our teaching we continuously monitor pupils' progress against expected attainment for their age. We use summative assessments such as the updated Puma, White Rose end of block and termly assessments, making notes where appropriate and using these to inform our discussions in termly Pupil Progress Meetings and update our summative school tracker. The main purpose of all assessment is to always ensure that we are providing excellent provision for every child and adapt our teaching to ensure understanding.

Impact

Through moderation of planning, lessons and books, we can be sure that progress is made across all year groups. If progress is not being made, support is immediate and steps provided to ensure all pupils achieve and make progress. Summative assessment takes place at the end of each term and children's progress and attainment is discussed with school leaders in pupil progress meetings. Formative assessment takes place on a daily basis and teachers adjust planning accordingly to meet the needs of their class. The teaching of mathematics is monitored by leaders through lesson observations and book scrutinies.

Next Steps

- 🔗 Purchase more hands-on resources for each class, e.g. Place Counters, Base 10, clocks, money
- 🔗 Teach maths in mixed ability classes rather than sets.
- 🔗 Use the new White Rose Scheme of learning 3.0.
- 🔗 Continue to use White Rose Maths workbooks where appropriate, but integrate more fluency, written methods and problem solving in maths exercise books.
- 🔗 Embed 'Mastering Number Project' for all EYFS and KS1 teaching staff. Ensure 15-minute daily programme is being followed.
- 🔗 Carry out skills audit of all staff within classroom and use WRM online CPD to address an areas of need.
- 🔗 Complete the Maths **Times Table Check** with Year 4
- 🔗 Formalise an overview of Key recall facts delivered across the school to ensure continuity (KIRFS)
- 🔗 Use the recently updated Puma assessment which now follows the White Rose scheme of learning. WRM will be updating their Assessments throughout the year – this will be monitored to see how data rich it is. Use new ULT excel sheets to display data.
- 🔗 Gain a better understanding of Maths across the school through New Subject Team meetings and more book scrutinies and learning walks.

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