Maths Subject Leader Report



Subject leader: Mr Taylor

Intention

At Highfield Community Primary School, we understand the importance of mathematics and its contribution to wider society. We want all of our children to feel confident in lessons and be fluent in all aspects of mathematics. Children are encouraged to use patterns and recognise relationships within their learning and apply this to the world around them. Children use their knowledge of mathematics to achieve in lessons across the curriculum from science, to problem-solving in PE and finding shapes in artwork. We strive to expose our children to mathematical-thinking at every point in their learning journey through Highfield.

Implementation

At Highfield, we follow a 'Mastery Approach' to the teaching of mathematics. Lessons are planned to take into account the 'five big ideas' - Representation and Structure, Mathematical Thinking, Variation, Fluency and Coherence. We use a 'Pearson Approach' to the delivery of mathematics - combining Power Maths, White Rose Maths and Learning by Questions. We follow the White Rose Maths sequence of learning and ensure lessons are progressive by pairing this with resources from Power Maths and teacher-led practical activities. A typical maths lesson involves a starter which is skills-based, followed by an input with an emphasis on practical resources where appropriate and an activity in which children can independently achieve and demonstrate their knowledge. We ensure that no child is left behind and take an ambitious approach to extending their mathematical thinking; drawing on previously learnt concepts and placing their learning into real-life contexts. Significant time is spent developing deep knowledge of the key ideas that are needed to underpin future learning. We do this by emphasising connections within mathematical concepts and allowing our children to become masters in maths. Once a week, children are taught a 'Mastering Maths' lesson. This is a lesson designed to move away from the learning throughout the rest of the week and is usually practical. It is a lesson which gives teachers the opportunity to constantly revisit and retrieve knowledge outside of their blocked learning. Children enjoy this lesson and we try to ensure that it is child-led, following the interests of the children.

The use of technology is fundamental to the teaching of mathematics at Highfield. We encourage children to use the interactive whiteboard and IPads to take their learning beyond the classroom - this might be through the use of interactive maths games and applications such as TT Rockstars and Numbots. We appreciate that Year 4 Multiplication check is via an online portal and want children to be used to the technology. In terms of this assessment, we have a specific intervention for the Year 4 children which takes place once a week and builds on the continual times table learning in the classroom. Children also use 'Rolling Numbers' across school to embed their learning of times tables.

Every classroom has some 'Maths Toolkits'. These are fully equipped boxes which allow for practical maths and concrete resources at every opportunity. These toolkits are the same across every classroom, meaning that children are used to using the same equipment in every lesson and when they move through school; they also assist during interventions. We also have a fully stocked resource cupboard with fully class sets of resources for whole-class teaching.

Our children in EYFS are taught the 'Early Learning Goals for Mathematics' and are encouraged to use maths throughout their continuous provision. This continuous provision (and the use of maths challenges) is extended into Year 1 so that children can seamlessly continue their learning journey.

Throughout Key Stage 1, we also use Mastering Number which, again, gives the children a level of consistency and embeds key knowledge, laying the foundations for a mastery approach to maths as they travel through school.

We have a very knowledgeable staff who are all passionate about Primary Mathematics. Staff attend CPD sessions within school and the maths lead attends all of the local cluster CPD training – relaying this back to staff. The maths lead at school is also an NCETM Accredited Professional Lead, we are part of the Abacus NW Maths Hubs (currently on the 'Sustaining' (and final) phase of the mastery programme) and are part of a Continuity from Years 5-8 work group.

SEN provision

In KS2, we have identified a number of children who would benefit from 'Mastering Number'. The use of dual-coding and discussion-based lessons translates into the activities that the children complete during these targeted 'intervention-based' lessons and they are able to return to class and complete their follow-up work independently.

<u>EYFS</u>

At Highfield, we aim for a mastery approach to cultivate a deep understanding of number. In Early Years, our children first 'feel' maths in their hands. We expose our children to a wide variety of resources and carefully interweave this into our continuous provision opportunities. This might be exchanging numicon in the role play area, or exploring subitising in the loose parts area. Our outdoor provision provides endless number, capacity and problem solving opportunities through large-scale construction, sand play, water play and mud kitchen sessions. This practical approach allows children to explore a variety of resources, receive the explicit teaching of key concepts, and begin to develop an effective number sense. Pupils experience a journey of numbers to twenty, whilst mathematical opportunities are embedded throughout every corner of the environment to allow for active-learning and exploration. We teach children to use Maths Eyes from the very beginning of their journey here at Highfield. Maths eyes provide children with the opportunity to embed their mathematical skills by seeking maths out in a variety of contexts and showing their application skills. Not only is Maths Eyes a retrieval tool, but an assessment tool to unpick misconceptions and challenging concepts. We are users of White Rose Maths, and Mastering Number and develop lessons and provision to best suit our unique children. Following an explicit maths input from the teacher, children engage in 'counting club'. Counting clubs are an exciting time to build concepts, further explore resources and work together on a small group level. This allows us to adapt our teaching effectively to the needs of each group within the cohort, and allow all to access the mastery approach. Children are challenged to deepen their learning, and where necessary children receive further support to embed their number sense.

<u>Impact</u>

The data highlighted below demonstrates a positive impact when considering statutory data.

2022 KS2 (Year 6) SATs (National Average)				2023 KS2 (Year 6) SATs (National Average)			
Reading	Writing	Maths	Combined	Reading	Writing	Maths	Combined
74 (74)	61 (69)	65 (71)	57 (59)	77% (73)	68% (71)	73% (73)	59 (59)
+1.8 (0)	-0.8 (0)	+0.8 (0)		+3.6 (0)	+1.1 (0)	+1.7 (0)	
KS1 (Year 2) SATs (National Average)				KS1 (Year 2) SA	KS1 (Year 2) SATs (National Average)		
Reading	Writing	Maths	Combined	Reading	Writing	Maths	Combined
59 (67)	49 (58)	56 (68)	46	62 (68)	51 (60)	64 (70)	44

The Multiplication Table Check results demonstrated a need to focus on this area of mathematics:

Mean average score



Hence the increased time spent on laying the foundations for mathematics across school - initially with Mastering Number in KS1 and the introduction of a specific times table intervention further up school.