

Maths at Cranford Park Primary School 2024-2025

<u>What We Do</u>		<u>Why We Do It</u>
Approach	Curriculum schemes of learning	We implement the Maths National Curriculum and ensure there is a balance of fluency, reasoning and problem-solving. Through the use of the White Rose schemes of learning, we promote mastery in mathematics. Using a block approach enables children to be able to practice, apply and deepen their learning and allows them to become more proficient when applying their learning through problem-solving. To supplement White Rose, we also utilise the NCETM spines which breaks the learning down into smaller, manageable steps to maximise progress for all children.
	Learning journeys	To allow teachers to fully understand children's different starting points, they will provide an 'entry ticket' task that will assess current understanding and prior knowledge. This is then used to inform future planning throughout the small steps which will be supported by suitable scaffolds tailored to the children's needs. Sufficient challenge for all children will be provided. At the start of each new unit, the children are given a unit road map which outlines the small steps in the learning journey. These will be stuck into their books and referenced to throughout the journey.
	CPA	In order to develop children's conceptual understanding, we implement the Concrete, Pictorial, Abstract (CPA) approach for all children. We believe that the concrete resources should consistently be used alongside the pictorial representations and abstract recording. We want all children to be able to prove their thinking using the concrete resources or an appropriate pictorial representation.
	Learning environment and working walls	In EYFS, there is a wide range of Maths opportunities both within the learning environment and the outdoor area. There is a dedicated Maths space so children can easily access a range of concrete resources. Number lines and number blocks are also displayed to support children's learning and number awareness. In the classroom, there is a working wall to promote the current number focus. This includes a range of representations, such as a number line and Numicon. In KS1 and KS2, there is a Maths working wall which is linked to the current learning journey and includes mathematical vocabulary, steps in the journey, CPA approach and teacher modelling.
Structure	Flashbacks	To encourage children to revisit and retrieve previous learning, we provide children with a daily flashback activity. They complete it independently and they then self-mark their work. A discussion takes place to compare strategies used and the teacher highlights the most efficient method.
	I do, We do, You do	All lessons adopt the pedagogical approach of I do, We do, You do. During the I do section of an input, the teacher demonstrates high quality modelling of the key learning through the implementation of concrete resources, pictorial representations, abstract recording and mathematical language. Sentence stems will also be displayed on the slides so children can access and orally rehearse their thinking and reasoning. The 'We do' part of an input allows the children to apply what they have seen their teacher model into their own thinking. The children are encouraged to work with a partner to discuss the steps required to solve a problem. The teacher uses their professional judgement to assess which children are ready to move on to independent practice and which children may benefit from additional guided practice. The 'You do' part of the lesson is a fluid and flexible approach. Appropriate use of scaffolds will be given to those children that need it and for higher attainers, we provide opportunities for additional challenges to deepen their learning. A practice, apply and deepen model is adopted to maximise progress for all children.

	Mastering Number in EYFS and KS1	We implement the NCETM Mastering Number program. Children in Reception, Year 1 and Year 2 will have a daily teacher-led session of 10 to 15 minutes, designed to ensure that pupils develop fluency with, and understanding of, number that is crucial to future success in maths and academic progress more generally.
	Fluency in KS2	There is a daily 10-15 minutes teacher led session that will develop children's fluency and key number facts. This will be in addition to the daily Maths lesson. The use of the counting stick will promote whole-class counting aloud and encourage children to look for patterns. These together with the use of the number link boards will use the '1,10,5 derive' approach to increase children's recall of key number facts and times tables.
	Reasoning and problem-solving	As identified above, teachers model a high-quality example of reasoning using precise mathematical vocabulary and stem sentences. As a result, the children will apply this structure to deepen their own reasoning. We provide children with a range of opportunities to apply their knowledge and understanding through a variety of problem-solving tasks. Opportunities to explore the use of problem-solving strategies are also applied. In addition to White Rose reasoning and problem-solving tasks, we utilise the 'I see reasoning' resource, Testbase, NRICH and NCETM mastery tasks to promote mathematical thinking.
Broader Maths Curriculum	Reactive Maths	Pupils' difficulties and misconceptions are identified through immediate formative assessment and addressed with rapid intervention - commonly through individual or small group support during the lesson or later the same day in 'Reactive Maths' sessions. These take place daily, for about 10-15 minutes, with the class teacher. These should involve no more than 6 children and can also include pre-teaching in order to help children access the forthcoming sessions with more confidence.
	Application of skills across the curriculum	In order to further apply their skills, children will be provided with appropriate cross-curricular activities that enhance real-life Maths contexts.
	Maths Fact Fluency	Children in KS2 are tested on their times tables weekly in class. They work to complete their Bronze, Silver and Gold awards. These are followed by Platinum, Master and Grand Master tests. Children can also earn their 'Star badge' and 'Achievement Badge' for proficiency in Maths Facts. In the future, we are looking to raise the profile of times tables in order to increase rapid recall and the ability to apply known facts when deriving new facts.
	NSPCC Number Day	Each year, we participate in the NSPCC Number Day. We host a range of engaging and practical Maths activities that will enrich children's learning and allow them to see the importance of Maths in everyday contexts.
	'Multiply' parent workshops	To develop positive attitudes to Maths, parents have been participating in workshops held by the government funded company 'Multiply', alongside their children. This provided practical ideas and games they could utilise at home. Support staff have also had training about the strategies used to support children.
	University of Cranford Park	Children have the weekly opportunity to attend faculty activities that will enrich their understanding of the wider world. The faculty of Economics allows children to plan an item to sell, create it and also work out the money needed, as well as profit made. Key Maths skills such as budgeting and estimating are utilised to highlight the importance that Maths plays in everyday life.
Assessment	Formative	We implement a range of Assessment for Learning strategies such as targeted questioning, peel away groups, identifying the need for challenge and live feedback marking. Through the use of live feedback marking, this allows misconceptions to be clarified and allows children to see the process they go through to complete a problem. Following the schools marking policy, teachers regularly mark books in order to gain an understanding of areas of strength

		and next steps. Teachers provide children with feedback that will let them know the progress they are making in their learning.
	Summative	<p>In Autumn, Spring and Summer, the children complete Maths NFER tests that generate a standardised score. These then become one of the factors for teacher judgement when assessing children at the end of a milestone. These are tracked to show progress and are discussed in pupil progress meetings. The use of question level analysis is used in order to unpick areas for development. Focus groups are then identified to plug gaps in learning.</p> <p>End of KS1 optional tests are used to support teacher assessments. Statutory end of KS2 tests takes place. Plans are in place to explore the use of White Rose termly assessments to inform future planning.</p>