The Waterside Way – Maths Curriculum

Intent, Implementation and Impact

INTENT	IMPLEMENTATION	IMPACT
At Waterside Primary Academy, maths, reading and writing are at the heart of every child's learning and therefore form key elements of every learning experience. In line with the key aims of the 2014 Natoinal Curriculum, during maths lessons at Waterside, we strive for all children to develop the following three attributes of successful mathematicians: **1. Become fluent in the fundamentals of mathematics** **2. Be able to reason mathematically** **3. Can solve problems by applying their mathematics** These skills are embedded within maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy mathematics and to experience success in the subject, with the ability to reason mathematically. We encourage resilience and conceptual variation and an acceptance that challenges and mistakes are often a	The content and principles underpinning our maths curriculum at Waterside Primary Academy reflect a Mastery approach to broaden and deepen mathematical understanding. Children study mathematics daily covering a broad and balanced mathematical curriculum including elements of number, calculation, geometry, measures and statistics. We focus not only on the mathematical methods but also on mathematical vocabulary. To achieve our intent, we provide a rich, sequenced and progressive curriculum which caters for the needs of all pupils through varied and high-quality activities. To ensure whole-school consistency and progression (from Reception all the way to Year 6), the school uses the DfE approved 'Power Maths' scheme, which is fully aligned with the White Rose Maths scheme. To ensure our children are ready to start Power Maths in Reception, we incorporate 'building blocks' in Nursery that lead into the key mathematical principles taught in Reception. We also have a subscription to TTRockstars to support pupils' mathematical fluency and support their understanding of times tables. The mastery approach helps to children explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding. Together, these elements help cement knowledge so pupils truly understand what they've learnt. The school has worked as part of the DfE funded Maths Hubs programme to ensure that staff at all levels understand the pedagogy of the approach. All pupils, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach. Pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols. This helps children tackle concepts in a tangible and more comfortable way. ***Concrete*** – children have the opportunity to use concrete objects and manipulatives to help them understand and explain 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.	Maths lessons are engaging and well-resourced with the pupils acknowledging that the journey to finding an answer is the most important factor. Our children are resilient and show a growth mindset in Maths. They make measurable progress against the National Curriculum objectives. Children are keen to attempt a range of problems, choosing the equipment they need to help them to learn, where possible, along with the strategies they think are best suited to each scenario. Children are developing their skills in being articulate and are able to reason verbally, pictorially and in written form. Well-planned sequences of learning support pupils to develop and refine their maths skills. Children are able to independently apply their knowledge to a range of

necessary step in learning. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of mathematics.	New concepts are shared within the context of an initial related problem, which children are able to discuss in partners. This initial problem-solving activity prompts discussion and reasoning within mixed-ability pairings, as well as promoting an awareness of maths in relatable real-life contexts that link to other areas of learning. The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. Each lesson phase provides the means to achieve greater depth, with children who are quick to grasp new content, being offered rich and sophisticated problems, as well as exploratory, investigative tasks, within the lesson as appropriate.	increasingly complex problems. The school measures impact through: • Formative assessment through teacher questioning and marking within lessons • Flashback 4 slides within each lesson to assess retention of skills and knowledge and interrupt the forgetting of key skills • Termly summative NFER testing to measure attainment against a national standardised score – Termly • Pupil Voice to assess understanding