



Maths Policy 2019-2020

<u>Intent</u>	<u>Implementation</u>	<u>Impact</u>
<p>Fluency Children will become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual and procedural understanding and the ability to recall and apply knowledge rapidly and accurately.</p> <hr/> <p>Reasoning Children can reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language, e.g. “Convince me that...” or “I know that...so...”</p> <hr/> <p>Problem Solving Children can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. The Bar Model device is used throughout the school to support problem solving.</p> <hr/> <p>Children will be taught through the Concrete → Pictorial Representations → Abstract sequence to ensure they gain a thorough understanding of the mathematical concepts/skills they are learning.</p> <hr/> <p>Children should be given the opportunity for every relevant subject to develop their mathematical fluency and mathematical skills.</p>	<p>Using the National Curriculum, Durham learning objectives and calculation policy teachers plan sequenced lessons through medium and short term planning using fluency, reasoning and problem solving.</p> <hr/> <p>Teachers use a range of resources to best suit the children’s needs and provide a variety of opportunities for children to apply their fluency, reasoning and problem solving skills.</p> <hr/> <p>Teachers and staff model examples and expectations using episodic teaching. Each lesson will involve reasoning see children can apply their skills.</p> <hr/> <p>Teachers follow the calculation policy ensuring pupils build up their knowledge year on year to deepen and broaden their understanding of all concepts. Children will be given opportunities to use a range of resources to ensure metacognition understanding of concepts rather than procedural understanding.</p> <hr/> <p>Teachers use investigations bi-weekly to allow the children to apply their problem solving and investigation skills.</p>	<p>Children have a positive attitude towards mathematics and an awareness of the fascination of mathematics</p> <hr/> <p>Children are fluent with conceptual and procedural concepts in all aspects of maths including written and mental methods.</p> <hr/> <p>Children to exceed national averages in maths at the end of each Key Stage and make accelerated progress throughout the school in national performance charts (top 20%).</p> <hr/> <p>Children develop a competence and confidence in mathematical knowledge, concepts and skills</p> <hr/> <p>Children have an ability to solve problems, to reason, to think logically and to work systematically and accurately persevering using growth mindset.</p> <hr/> <p>Children have an understanding and enjoyment of mathematics through a process of enquiry and experiment</p> <hr/> <p>Children have the initiative and an ability to work both independently and in cooperation with others</p> <hr/> <p>Children have the ability to communicate mathematics and mathematically</p> <hr/> <p>Children have an ability to use and apply mathematics across the curriculum and in real life</p>

