



## Maths Subject Statement

Subject	<p style="text-align: center;"><b>Maths</b></p> <p style="text-align: center;"><i>'Mathematics is the most beautiful and most powerful creation of the human spirit' – Stefan Banach</i></p>
<p><b>Purpose and aims</b></p>	<p>At Ashmount, we follow the National Curriculum for Mathematics. As set out in the National Curriculum, the aims of teaching Maths are:</p> <ul style="list-style-type: none"> <li>• Become fluent in the fundamentals of Mathematics, including the varied and regular practice of increasingly complex problems over time.</li> <li>• Reason mathematically by following a line of enquiry, understanding relationships and generalisations, and developing an argument, justification or proof using mathematical language.</li> <li>• Can solve problems by applying their Mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.</li> </ul> <p>Our Maths lessons at Ashmount follow the teaching for mastery philosophy so that all children acquire a deep and sustained understanding of maths concepts and become confident and resilient mathematicians. Teachers design their lessons based on the five 'big ideas' for teaching for mastery:</p> <ul style="list-style-type: none"> <li>• Representation and structure</li> <li>• Variation</li> <li>• Mathematical thinking</li> <li>• Fluency</li> <li>• Coherence</li> </ul> <p>At Ashmount, we utilise a concrete-pictorial-abstract (CPA) approach so pupils gain a greater understanding of what they are doing rather than just learning procedures without understanding the maths behind it. We cater for the needs of all children, by building on their prior knowledge and by breaking down the complex mathematical concepts into smaller, more manageable steps so that all children can make progress from their individual starting points. Teachers explicitly draw out the patterns and connections underpinning different mathematical concepts and our interactive lessons, which build on children's fluency of retrieving key mathematical facts, and therefore allows key learning to be embedded into children's long-term memory. All lessons have opportunities for children to reason and problem solve around the area of maths that is being taught.</p>



<p><b>Core values</b></p>	<p><u>Community</u></p> <p>Children are given opportunities to work collaboratively in every Maths lesson. Our families are encouraged to deliver bespoke workshops and talks to our children during theme weeks. Teachers deliver workshops to support our families' in their own understanding of Maths and how we teach it at Ashmount.</p>	<p><u>Responsibility</u></p> <p>The Maths curriculum contributes to children's personal development in independence, judgement and self-reflection. They take responsibility for using their resources respectfully. In group work, the children understand that everyone needs to participate and have a role so that their group can be successful. Our children actively take part in discussions, enabling them ask and answer question to further their understanding.</p>	<p><u>Growth</u></p> <p>The Maths curriculum encourages children to become resilient and life-long learners. Our children see the value in practising key skills and recalling mathematical facts as they know this will help them become more confident and fluent mathematicians. Through problem solving, children are able to try out different methods and strategies in safe, supportive environment.</p>
<p><b>Knowledge and skill progression</b></p>	<p>In EYFS, our aim at Ashmount is for all children to develop firm mathematical foundations in a way that is engaging and age appropriate. Maths is taught discreetly and children have the opportunity to develop the mathematical skills they have learned in guided activities and independent play. Children learn the fundamentals of number in order for them to be ready to access the curriculum in Year One.</p> <p>At Ashmount, we follow the National Curriculum objectives to design our Maths curriculum. Lessons are sequenced clearly so that firm mathematical understanding is constructed and built upon. Our lessons are designed to have a balance of fluency, reasoning and problem solving. In Years 1 to 4, teachers use Maths No Problem to support their lesson planning. In Years 5 to 6, teachers use White Rose Maths to support their lesson planning. All lessons are carefully designed to meet the needs of all children and so that everyone child can feel a sense of achievement in every lesson. Children are exposed to a range of representations and structures to support their understanding and see patterns and connections through variation in the activities that teachers design.</p> <p>Children who grasp concepts rapidly will be challenged through being offered rich mastery and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material will be supported to consolidate their understanding, including through additional practice before moving on. Where appropriate, work may be pitched to and adapted to support children who are not yet ready to access that year's curriculum.</p> <p>For a more detailed description of progression, please see our Mathematics Curriculum Overview.</p>		
<p><b>Characteristics of effective learning</b></p>	<p><u>Engagement</u></p> <p>Children are regularly exposed to practical applications of their Maths learning, using a range of high-quality manipulatives, so that they foster a passion for the subject.</p>	<p><u>Motivation</u></p> <p>As a Growth Mindset school, the children at Ashmount are taught to value the 'good mistakes' they make in Maths and see them as a further opportunity to develop their knowledge and skills. As children experience problem-solving in Maths, they are building their resilience. Our children are</p>	<p><u>Thinking</u></p> <p>Mathematical thinking is developed in all Maths lessons at Ashmount. Children are actively encouraged to reason around their Maths understanding, with this being explicitly modelled by the teacher so they are exposed to high-quality answers.</p>



	<p>Lessons are designed with an element of challenge in mind so that children are engaged to persevere and succeed.</p> <p>During all of our Maths lessons, the children take part in regular discussions about their Maths learning, which is child-led and with the teacher acting as the facilitator.</p> <p>Our children are happy to take risks in lessons because teachers give specific praise to identify and highlight when a child has overcome a certain difficulty.</p>	<p>encouraged to reflect on their own progress so that they have a sense of what they need to work on next to continue developing their understanding.</p> <p>Children are motivated to succeed in Maths at Ashmount through our celebration assembly where the top 3 most improved children on Times Table Rock Stars in Year 3 to Year 6 are awarded certificates for their efforts. This then gets celebrated in our school newsletter so children feel a real sense of achievement.</p>	<p>The use of repetition around key vocabulary and key mathematical concepts, as well as opportunities to retrieve key mathematical facts, are embedded in our lessons so that the key knowledge and skills the children need are retained in their long-term memory.</p> <p>Teachers use effective questioning to develop our children's metacognition.</p>
<p><b>Communication and vocabulary</b></p>	<p>At Ashmount, we value the importance of oracy and our children being able to communicate. Therefore, we explicitly teach key vocabulary in every Maths lesson to give children the tools they need to communicate effectively about their learning. Our vocabulary progression document ensures that children are being taught age-appropriate language that is built on as they progress in their learning journey at Ashmount. Our Maths lessons are designed so that children are discussing their understanding with their peers and adults in every lesson. Stem sentences are a key feature of our Maths lessons so children are fully equipped to use the key vocabulary to discuss their learning.</p>		
<p><b>Cultural capital</b> "the essential knowledge pupils need to become educated citizens"  "introducing them to the best that's been thought and said"  "engendering an appreciation of human creativity and achievement"</p>	<p>Through the use of the National Curriculum for maths and our high-quality resources, children master their understanding of Mathematics so that they are prepared for the next stage of their education and beyond.</p> <p>Our lessons are designed so that children have the opportunity to apply their learning in class to real-life contexts.</p> <p>At Ashmount, we build cross-curricular learning opportunities into our practise to inspire children's engagement and passion for maths. For example, they might experience data handling as part of their learning in Science, Computing, History and Geography or the might experience measuring during their Science, Art and Design and Technology lessons.</p> <p>Children are able to appreciate the achievements of prominent mathematicians through our theme days and weeks, such as Black Mathematician Month and STEM Week.</p>		



<p><b>Learning experiences</b></p>	<p>At Ashmount, we teach Maths daily through a carefully selected sequence of lessons. Children take part in Black Mathematician Month as part of Black History Month, NSPCC's Number Day and STEM Week. Parents encouraged to visit classrooms during our theme weeks to show children the application maths in a real-world context. In Year 6, children take part in the 'Ashmount Young Apprentice' where they experience advertising, buying and selling to raise money for their end of year activities.</p>
<p><b>High quality resources</b></p>	<ul style="list-style-type: none"> <li>• Maths No Problem resources</li> <li>• White Rose Maths resources</li> <li>• NCETM resources</li> <li>• TestBase resources</li> <li>• Mastering Number</li> <li>• A range of manipulatives available in classrooms and learning spaces for children to use to support their learning (such as dienes, Numicon, rekenreks, number lines, place value counters, place value charts, tens frames, fraction walls, money, 2D and 3D shapes, measuring equipment, weights and scales)</li> <li>• Times Table Rock Stars – an online times table resource</li> </ul>