**Individually Strong, Collectively Stronger!**


# Maths

**Intent:**

When our children leave Allen Edwards, we expect them to be competent mathematicians who have developed a sense of curiosity and enjoyment for mathematics and an understanding of how it is used in everyday life. Children will become fluent in the fundamentals of mathematics, developing fluency and, with frequent practise, will develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. Our children will learn to reason mathematically with plentiful opportunities to do so. They will be provided with a high quality mathematics education following the EYFS Statutory Framework and the National Curriculum, which provides them with a foundation for understanding the world around them.

**Impact:**

- By the end of EYFS, KS1 and KS2, our intent is to ensure that all children make good progress from their starting point.
- Progression across termly assessments (Testbase and TT Rockstars) will be evident across KS1 and KS2.
- By carefully tailoring and planning a curriculum based on the children's needs, we will secure their knowledge and fluency of number, with increased complexity over time.
- Carefully considered intervention and arithmetic sessions will provide an opportunity to close any gaps in children's learning, which will be evident in progression across all strands of their mathematical journey, as well as raising their confidence.

Through well-structured sequencing, good modelling and being exposed to a range of strategies and problems, children will develop independence and resilience to apply their skills and reason, and will see themselves as confident mathematicians.

**Implementation:**

To ensure children make good progress at Allen Edwards from their starting point, we provide an enriched mathematical curriculum that allows children to develop fluency, secure mathematical skills and concepts and teach them strategies in order to use and apply their skills, developing their reasoning in a range of contexts and topics. We implement Maths in a variety of ways. A core pedagogical strategy used is modelling. Clear learning intentions are shared, explanations are concise and methods are modelled with clear steps to success. This enables children to acquire a clear understanding of the Maths concept being taught and supports them to build their confidence in applying this with increased independence as the lesson progresses. Teachers pre-empt misconceptions that will arise in lessons and plan for these to be addressed in order to ensure errors in learning are minimised. Mathematical vocabulary is clarified through teacher verbalisation during the modelled or shared method. Children's questions are encouraged to secure understanding.

Questioning is a vital element of teaching and learning within Maths. Many strategies (e.g. think-pair-share, cold calling or pose-pause-pounce-bounce) are used to engage, motivate and systematically check the understanding of children during lessons. Other adaptive teaching strategies, such as varying pace, support and task, are utilised by teachers to ensure that every child is learning the right aspect from their known starting points. Visuals are widely used to further deepen or support understanding. Daily reviews are used to consolidate and monitor prior knowledge. Gaps are identified quickly and interventions or 'pick ups' are used to ensure targeted children keep up with their peers. Differentiation is used when children are learning outside of their current year group. A curriculum that meets their needs is incorporated to ensure every child has the best possible opportunities to make progress and be successful.

To support and extend learning in Maths, concrete resources are used across the school alongside visuals to develop a deeper and secure understanding. Resources are readily available in the classrooms for children to access, whilst ensuring children are not over-reliant on these tools. Practical activities and use of real-life, meaningful contexts ensures that children develop a purposeful and secure understanding of all areas of Maths. Investigations, worded problems, reasoning questioning and child-developed explanations are used to allow children to demonstrate a clear understanding of all areas of Maths and also provide plentiful opportunities to extend children who are working towards and at a mastery level. This is further embedded through cross-curricular links to Maths.

Within every lesson, teacher expectations of behaviours for learning and tasks are clear. This ensures that children are aware of what they need to do to be successful as well as having the modelled or shared method to refer back to. This model is displayed throughout the sequence of learning on the washing line so that children can refer back to previous learning, as well as that day's learning, to support and extend their mathematical understanding. Focus groups are used across the school in lessons to ensure that every child's learning correlates with their needs. This allows adults to stretch and support learning while informing planning as a result of the teachers securely knowing the needs of all in their classrooms. Co-operative learning strategies, such as paired investigations, are used to further support children, develop mathematical language and extend the explanations to embed understanding.

Feedback plays a vital role in teaching and learning. Children are provided with many opportunities to engage with feedback verbally and written feedback is part of the learning process in their books. In lesson practise as well as spaced practice is used to consolidate and reconsolidate core knowledge within every year group. Plenaries are used where appropriate in many forms (e.g. mini plenary, end-of-lesson plenary) to evaluate children's understanding and further inform teaching practise to maximise the impact this has on the children's progress. Feedback continues for those who require additional support through the use of interventions and pick up to close the gap between themselves and their peers or accelerate their progress beyond age-related expectations. Children's learning gaps or misconceptions are used to inform planning and responsive adaptations are made to ensure secure and embedded understanding across the Mathematics curriculum.