The Maths Curriculum

Intent	The intent of our mathematics curriculum is to provide children with a foundation for understanding number, reasoning, thinking logically and problem solving with resilience so that they are fully prepared for the future. It is essential that these keystones of Mathematics are embedded throughout all strands of the National Curriculum. By adopting a Mastery approach, it is also intended that all children, regardless of their starting point, will maximise their academic achievement and leave Abbey Woods Academy with an appreciation and enthusiasm for Maths, resulting in a lifelong positive relationship with number. - We ensure that we deliver a high-quality maths curriculum that is both challenging and enjoyable. - We want children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. - We intend for our pupils to be able to apply their mathematical knowledge to other subjects. - We want them to know that maths is essential to everyday life and that our children are confident mathematicians who are not afraid to take risks. - We want to develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.
Implementation	KS1 and KS2 follow 'Maths No Problem'. This spiral, mastery curriculum can be accessed by all pupils. 'Maths No Problem' is a series of textbooks and workbooks written to meet the requirements of the maths National Curriculum. We deliver maths using the CPA (concrete, pictorial and abstract) approach. The concrete aspect of the CPA approach is using real life objects or mathematical manipulatives whilst the pictorial stage is represented through a diagram, this is usually based on the concrete materials that the children have used. Manipulatives and representations can be powerful tools for supporting pupils to engage with mathematical ideas. The concrete and pictorial stages are designed to help the children understand the abstract mathematics. The abstract stage is the area that most people consider 'the maths.' The ultimate aim is for the children to understand the maths abstractly and the concrete and pictorial stages are stepping stones to achieve this goal. Pupils are encouraged to show their workings in a number of different ways. They are also encouraged to work collaboratively with a partner to share and celebrate their learning. Fluency, reasoning and problem solving skills are all developed. For each year band, skills are built on from previous learning. These are revisited in lessons in the form of reasoning problems and problem solving activities. Planning for maths lessons is adapted from the scheme. Textbooks and previous knowledge and gaps are also used to inform planning. Further mastery activities are used to challenge pupils and further develop their understanding. Children with additional needs are included in whole class lessons and teachers provide scaffolding and relevant support as necessary. For those children who are working outside of the year group curriculum, learning activities are adapted to ensure progress. Additionally, fluency skills are developed through the use of daily 'Fast Five' sessions. This focuses on reinforcing the basic maths skills and arithmetic strategies. Children practise their multiplication through a variety of ways, such as, chanting, TTRockstars, formal written sessions and songs. In Early Years Foundation Stage, we relate the mathematical aspects of the children's work to the Development Matters statements and the Early Learning Goals, as set out in the EYFS profile document. Mathematics development involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers; calculating simple addition and subtraction problems; and describing shapes, space, and measures. Children will develop their understanding through planned, purposeful play and through a mix of adult-led and child-initiated activity.
Impact	Children leaving Abbey Woods will become fluent in the fundamentals of mathematics and will understand the world through contextual problem solving and an enjoyment of the subject. Maths lessons are engaging and well-resourced with the pupils acknowledging that the journey to finding an answer is the most important factor. Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times tables. Children show confidence in believing that they will achieve and are keen to attempt a range of problems and demonstrating flexibility and fluidity to move between different contexts and representations of maths. Children are developing skills in being articulate and are able to reason verbally, pictorially and in written form. Children are able to make connections between mathematical topics. Formative and summative assessments inform judgements and Target tracker is used each half term to monitor progress and attainment.