

POLICY: MATHS

CURRICULUM INTENT

A high-quality mathematics education provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

The curriculum for Maths at Elms Bank aims to ensure that:

- Learners become fluent in the fundamentals of mathematics, including through varied and frequent practice with, so that pupils develop conceptual understanding and the ability to recall and apply knowledge accurately; with the use of varied resources, practical apparatus, pictorial and then abstract concepts.
- Learners can reason mathematically by following a line of enquiry, forming relationships and begin to make generalisations, using mathematical language
- Learners can solve problems by applying their mathematics to a variety of routine and non-routine problems, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

CURRICULUM IMPLEMENTATION

At Elms Bank, students study mathematics 4 times per week, covering a broad and balanced mathematical curriculum including elements of number, calculation, geometry, measures and statistics. Alongside maths lessons, 1 session per week pastoral time is spent focusing on functional application of maths (time, money, fractions, percentages, measure) to build fluency and precision in these areas and to think about numbers in a different way. Due to the interconnected nature of mathematics, at Elms Bank we aim to teach maths in a cross curricular manner as well as discretely to teach the practical application of mathematical skills.

We aim for each child to be confident in each milestone objective and develop their ability to use this knowledge to develop a greater depth understanding to solve varied fluency problems as well as problem solving and reasoning questions. The SOW is presented as a 'working towards' approach and builds up gradually, therefore supporting a gradual development of a learning journey. In using this model, teachers can clearly navigate their way through the curriculum and develop knowledge about what the students next steps will be. In the maths department we use a range of resources including White Rose Mathematics SOL, online resources including MYMaths, Classroom Secrets and NRICH, throughout the school to ensure a curriculum that is specific to each child's learning needs.

Children in Inspire and Explore pathway complete weekly homework. To support the children with their multiplication practice we use 'Times Table Rockstars' as an online and fun learning platform which also offers resources to be used in the classroom.

CURRICULUM IMPACT

The Key Stage 3 curriculum is cyclical, ensuring students revisit areas of learning every year to deepen and extend their mathematical knowledge and understanding. This enables them to access the KS4 curriculum at different levels, e.g. GCSE, Level 1, or Entry 3,2, or 1. For students with more complex barriers to learning, their curriculum is threaded through the whole curriculum and school day, where possible experiences and in the real world and experienced functionally. Outcomes for students are identified through the Pathway

POLICY: MATHS

documents. The impact of the curriculum is monitored and adapted based on lesson evaluations, termly data analysis, end of year data analysis, pupil voice and a range of other quality assurance processes.

EQUAL OPPORTUNITIES AND INCLUSION

All students are offered the chance to extend their mathematical knowledge and skills through participating in engaging, differentiated, resource supported learning opportunities. Opportunities to celebrate the contribution to mathematical understanding from different cultures is maximised.

SPRITUAL MORAL SOCIAL CULTURAL (SMSC)

Spiritual – Maths provides students with the opportunity to reflect on the use of shape and space within the environment. Pupils explore this through an understanding of movement and position. Pupils are encouraged to explore creativity and imagination in the design and construction of visual patterns, number sequencing and tessellating shapes. To promote pupils' spiritual development the Maths department continually takes the opportunity to praise students for their contributions in lessons thus building self-esteem and a sense of worth. The Mathematics department work towards a specific marking policy that also works towards regular verbal feedback to support progress of students and a feeling of heightened self esteem

Moral – Pupils explore issues around personal finance. They are given opportunities to discuss issues involving money such as stealing, borrowing and debt. They are able to reflect on the moral issues relating to these topics. Students are supported to participate in a range of functional based activities such as visits to the local supermarket and work towards displaying appropriate behaviour when out in the local community.

Social – The Mathematics curriculum encourages students to develop their number skills within the local and school community through developing skills in shopping, budgeting and managing household expenses. Pupils take part in a range of problem solving activities. They are encouraged to work collaboratively, take on leadership roles and develop team work skills. Some students participate in the running of a snack shop and use the funds raised to fund a trip with their class mates.

Cultural – The Mathematics department encourages the use of maths throughout the curriculum and into pupils' home life. Pupils are empowered to apply their Maths skills and knowledge to the wider curriculum, ensuring that they are numeric within a range of settings and experiences. Pupils explore numbers within a wide range of cultures. In addition students explore the value of the British pound compared to other currencies.

CAREERS EDUCATION INFORMATION ADVICE GUIDANCE (CEIAG)

Mathematics is a creative and highly inter-connected discipline it is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. Learning is related to real life, such as saving money to buy things, time and daily routines, managing money and timetables using public transport. Students also have the opportunity to run and attend the Gallery café, in school. This involves creating bills for people, giving money and calculating change. Some students look at profits and loss, e.g. when preparing, cooking and serving the 'staff lunches' as a business.

