



Brookfield School - Mathematics Curriculum Intent statement

Mathematics is the most beautiful and most powerful creation of the human spirit.

— **Stefan Banach, Polish mathematician**

Go down deep enough into anything and you will find mathematics.

— **Dean Schlicter**

Intent

The 2014 National Curriculum for maths aims to ensure that all children:

- Become fluent in the fundamentals of mathematics
- Are able to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- Can solve problems by applying their mathematical knowledge and compartmentalising problems to seek solutions

At Brookfield School, we intend to provide all children with a broad and balanced maths curriculum. The National Curriculum aims are embedded within maths lessons and existing knowledge is developed over time. We are committed to ensuring that children are able to recognise how essential mathematics is in everyday life. Where possible, we link topics to other subjects as maths is critical to the sciences, technology, financial literacy and most forms of employment in their future. We are passionate about using engaging resources and high-quality lessons to spark enthusiasm and enhance the appreciation of the beauty and power of mathematics.

Implementation

Maths at Brookfield follows a variety of pathways depending on the needs of each individual student. We focus on White Rose Maths in year 7 and 8 then focus on AQA Entry Level 3, Edexcel Functional Skills Level 1 and 2 as well as AQA GCSE Mathematics. Baseline assessments and teacher assessments are completed to evaluate which qualification would be most appropriate in KS4. We then tailor and adapt our teaching to match individual's needs.

Each Scheme of Learning has effective notes and guidance for small steps to support leaders within the department to work with non-specialist staff. It helps to develop their vocabulary and pedagogy, in particular highlighting potential misconceptions and how to address them. They also include many high quality resources which provides additional teacher support.

With all maths teachers developing their vocabulary, this helps to bridge the gap by immersing students in mathematical vocabulary in lessons and on displays in classrooms.

With White Rose Maths, the mastery approach is highly beneficial when teaching in a SEMH school. It provides flexibility and is effective when scaffolding lessons with the higher strand objectives, to stretch and challenge, and ideas for including the use of manipulatives in lessons to create more excitement and differentiated approaches to understanding.

Resources and materials that teachers select – in a way that does not create unnecessary workload for staff – reflect the ambitious intentions for the courses of study and clearly support the intent of a coherently planned curriculum, which is laced with cultural capital, and sequenced towards cumulatively sufficient knowledge and skills for future learning and employment.

Many tasks in lessons are designed to promote discussion and questioning about the subject matter. This ensures the checking of learners' understanding systematically, identifying the common misconceptions, building resilience and providing clear, direct feedback.

Our schemes of learning are designed to help with long term recall by the use of interleaving. This key feature means topics aren't taught in isolation but are regularly revisited within other context to aid memory and secure understanding. Recall starter activities are also used to support this.

Teachers and leaders use assessments effectively, to check understanding and inform teaching and intervention. Exemplar questions, mini assessments and termly assessments provides clear opportunities to assess understanding.

To continue to maintain high-quality teaching and subject knowledge of mathematics, staff are required to partake in regular CPD and leaders provide effective support for those teaching outside their main areas of expertise. This ensures a fluid and sound approach across all sites.

Impact

The impact will be measured and monitored in the following ways:

- Students will learn essential exam skills and will leave Brookfield with a suitable qualification in maths, with most accessing the GCSE curriculum.

- There is clear progress in their work and knowledge, which is regularly checked with summative and formative assessments. This will be shown termly on the progress tracker.
- Engagement and enjoyment around maths both in and out of the classroom.
- Students approach problem solving independently and in a confident and resilient manner.
- Feedback from teachers is to be digested in a positive manner to support and/or challenge students further.
- Non-specialist teachers feel confident in their ability to teach maths with support from the maths lead.
- SLT can observe high quality lessons throughout the maths department and can see this through book scrutiny too.