

The Chantry School mathematics curriculum

Our knowledge-led curriculum is built on the following premises:

1. We believe that all our pupils are capable of achieving well in mathematics, although their journeys to success may happen at different rates.
2. Mathematics is a hierarchical subject. To achieve well each building block needs to be secure.
3. Subject matter is never “mastered” – there is always greater depth and more that can be learned, even in the seemingly simplest of topics. By *mastery*, we aim to allow as many pupils as possible the chance to get to grips with as much of the curriculum as possible.
4. Pupils need lots of practice to make procedures automatic. Automaticity in many mathematical procedures is a key aim, so that pupils’ working memory is freed to think about more complex problems.

Curriculum

Content is interleaved to exploit the hierarchical nature of maths, so that any later unit will build in elements of earlier ones and the maths becomes both increasingly complex but also increasingly connected.

Our Key Stage 3 curriculum is designed on the idea that there is a large core of number and proportion topics that underpin so much more. These topics have the majority of Year 7 devoted to them, so that we can study them in depth and give all our pupils the opportunity to get to grips with them.

Something is never learned and kept in long-term memory unless it is regularly studied and revisited. Topics are interleaved throughout the curriculum sequence, giving plenty of opportunities for helping pupils to remember previously studied material through retrieval practice of different forms.

The main content of each unit of work isn't meant to be exhaustive, as that's supplemented by the ongoing retrieval through quizzing and Sparx homework.

Implementation

Combined with a curriculum that sequences topics and difficulty over time, direct instruction gives our pupils the greatest chance of success and is the most effective way to teach Mathematics. Teachers create careful explanations, model and scaffold questions and answers in lessons, anticipates misconceptions and carefully plans to address and minimise these.

Pupils’ understanding is regularly checked and assessed through low stakes quizzes, use of whiteboards, Sparx homework and end of cycle assessments. This includes assessment of both current learning and retrieval topics.