KIMICHI SCHOOL WORCESTER · CURRICULUM JOURNEY

Mathematics

A core subject for every pupil, every week

How Mathematics builds, year on year, from Lower School A to Upper Seniors

Lower School A
Year 7

- Number fluency, fractions, proportion and problem solving
- Early algebra, shape and measure

MILESTONE
Number fluency baseline

Lower School B
Year 8

- Algebra, graphs, measures and statistics
- Reasoning, fluency and confident problem solving

MILESTONE
Percentages and data secure

Inters
Year 9

- GCSE bridge: algebra, ratio, geometry and higher-level reasoning
- Building fluency, confidence and exam-readiness

MILESTONE
Foundation or Higher decided

Lower Seniors
Year 10

- GCSE content with diagnostic intervention and cumulative review
- Fluency, reasoning and targeted support

MILESTONE
First full GCSE paper sat

Upper Seniors
Year 11

- Gap-closing, practice and exam fluency
- Securing methods, confidence and independence

MILESTONE
GCSE Mathematics

WITH SCIENCE
Data, calculation, graphs and the required practicals.

WITH BUSINESS
Percentages, break-even, profit and reading a set of figures.

WITH MUSIC
Pulse, fractions, pattern and structure.

CONSTANT AT EVERY STAGE

Classes of no more than ten · Music at the heart · Personalised pathways · Every pupil performs · Calculators and concrete materials available throughout

Every stage builds knowledge, skills, confidence and character — with music enriching learning all the way through.

INTENT — WHY WE TEACH IT

More of our pupils arrive believing they are "bad at Maths" than at any other subject, and in almost every case that belief was formed in a large classroom where falling behind was invisible until it was serious. In a class of ten it is not possible to be quietly lost. We teach Mathematics to close the gaps that absence has created and, just as importantly, to dismantle the story a pupil has been telling themselves about their own ability.

WHY THE SEQUENCE RUNS THIS WAY

Number fluency comes first and is not rushed, because every later topic depends on it and because it is where the gaps usually are. Algebra is introduced early but gently at Lower School A and formalised at Lower School B, alongside the percentages and data handling that Science, Geography and Business will later assume. Inters is a genuine bridging year: GCSE content begins, but the emphasis is on securing reasoning. Year 10 is taught with diagnostic intervention built in rather than bolted on, and Year 11 is gap-closing driven by individual mock analysis.

WHAT IT BUILDS ON, AND WHAT IT LEADS TO

Builds on Key Stage 2 arithmetic, assessed on entry rather than assumed. Underpins the required practicals and calculations in Biology, Chemistry and Physics, the data work in Geography, and the quantitative skills in Business. Leads to GCSE Mathematics at Foundation or Higher tier, and to post-16 study, apprenticeships and the numeracy requirements of most employment.

HOW IT IS ASSESSED

Diagnostic baseline on entry, repeated at the start of Year 10. Weekly low-stakes retrieval. Half-termly topic assessments with cumulative review questions built in. Full GCSE papers from the summer of Year 10. Tier decision made provisionally in Year 10 and confirmed on evidence in Year 11.

ADAPTED FOR OUR PUPILS

Concrete materials are available at every stage and their use is normal, not remedial. Worked examples are modelled step by step and left visible. Calculators throughout, so that arithmetic anxiety does not prevent access to the mathematics. Assessments are marked for method as well as answer. Where a pupil has a specific gap rather than a general difficulty, it is targeted individually rather than reteaching the whole topic.

IMPACT — WHAT YOU WOULD SEE

Pupils who attempt questions rather than leaving them blank — the single clearest sign in this subject that confidence has moved. Fluent recall of number facts. Working shown as a matter of habit. Pupils who can say what they do not understand, specifically, which is the skill that makes catch-up possible.

WHAT HELPS AT HOME

Do everyday arithmetic out loud — the shopping, the change, the split bill. Avoid saying you were bad at Maths yourself; it lands harder than you would think. Ask them to teach you a method rather than testing them on it.