

Curriculum Intent

Curriculum Vision | Maths

We aim to equip our students with excellent mathematical skills which include problem solving and resilience alongside mathematical processes by fostering a love of mathematics.

Mathematics is a valued academic discipline at NKS. We aim to equip our students with excellent mathematical skills that will be of value to them in their chosen route after school, whether this is further education or employment.

We work with students to develop mathematical problem-solving skills, encouraging students to approach problems in a structured, logical manner. We also encourage students to be resilient and flexible in their approach – if they can't solve a problem with one method, how else could they solve the problem? What other methods could they use? Problem solving in mathematics is a key component in our curriculum. Where possible, these methods are linked to the real world to engage learners in these applications.

Our curriculum sequencing is thoughtful and meaningful throughout all key stages. As a department, we have identified links between topics in mathematics to teach a well-structured curriculum that spans across five years (and seven years for students taking part in A Level mathematics).

All students

- We expect students to show resiliency in mathematics.
- Our students will use feedback to make improvements on their mathematical understanding both independently and with the help of their teachers.
- Students must communicate their understanding in mathematics effectively and will be given the tools to do so.
- Our students will become independent learners who ask thoughtful questions and act on feedback.
- All students will be fluent in mathematical processes and understand their relevance in the real world.

Successful navigation of the subject within the world

- Students will master key calculation methods and understand the reasoning behind these methods.
- Links to the real world are made at the start of new units. These highlight societal skills alongside possible career opportunities.
- We prepare students for their next area of study in mathematics by offering enrichment opportunities which foster a love of mathematics

We support our student's mathematical achievement by fostering a stimulating learning environment for mathematics. This includes a mixed ability setting for all key stages. Our teachers are enthusiastic about our subject, and this enthusiasm is reciprocated by our learners. We provide regular feedback to our students on their progress after topic tests conducted at all key stages. Students' understanding is tested frequently providing staff and students with benchmarks to gauge understanding. We believe all pupils are well-prepared to use their skills in mathematics in the wider world.

MATHEMATICS



Key Stage 5
 This outlines focusses on the A level mathematics course, however we do offer Further Mathematics as well. Subject specialists teach the pure and applied aspects of the course.

Key Stage 4
 Our Key Stage 4 curriculum is bespoke for our students to include challenge in all units of work. While many topics are taught in isolation, emphasis is put on the overlap and crossover of mathematical ideals.

Key Stage 3
 In Key Stage 3, our scheme of learning follows the White Rose Mathematics curriculum with additional challenge resources to supplement where there are gaps. These include real-world applications of mathematics and multi-step problem solving questions.

