

MATHEMATICS AT SOUTH NOTTINGHAMSHIRE ACADEMY

“Our mission is to enable students to embrace Mathematics as a creative and highly-interconnected discipline, providing a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of curiosity and enjoyment about the subject.” SNA Maths Department, 2018.

The successful applicant will join a team of six highly motivated professionals, including three part-time teachers, in enabling students to maximise their potential by developing a deep understanding of mathematics through engaging, challenging and enjoyable Mathematics lessons. The faculty has a friendly and supportive atmosphere with teaching and learning at the centre of everything we do and staff are supported in continually developing their practice as we all strive for excellence. Development work is routinely carried out as a team due to the positive working relationships within the faculty. We have formed good relationships with the Redhill Academy Trust Maths network and take an active part in the further professional development this provides. Staff have the opportunity to take part in other external, subject-specific professional development. Recent activities have included attending Maths Conference and taking an active part in the ‘Challenging Topics in the New GCSE’ work groups coordinated by the East Midlands Maths Hub.

Mathematics is based on the first floor of our brand new school building that opened in September 2016. We have six specialist teaching rooms and a substantial workroom. All rooms have an Interactive Smartboard and visualiser. Teachers are provided with laptops.

The school as a whole is in a very interesting phase of curriculum development which is motivated by a need to increase the emphasis on achievement in Maths and English as well as the major changes to the program of study and particularly the new 1 to 9 GCSE. As a result of this we have a three year Key Stage 4 and students have increased hours of Mathematics in Years 9 and 10.

Key Stage 3

Students are taught in traditionally setted groups from the start of Year 7 and the faculty operates a top heavy setting policy so as to provide increased levels of support for lower achievers. The 2017 OFSTED report noted that

“In pupils’ mathematics books, inspectors saw good examples of lower-ability pupils finding work difficult and then going on to succeed. The feedback given to these pupils by teachers helped them to see what they had done wrong and how to put this right.”

Students follow a course based on a scheme of work developed in conjunction with the East Midlands Maths Hub using a bank of resources including Bowland Maths problem solving, functional mathematics, rich tasks, thinking skills and computer software packages alongside numeracy strategy units. We subscribe to HegartyMaths to provide personalised, comprehensive and scaffolded homework which has a clear purpose and which students understand.

Key Stage 4

As in Key Stage 3 students are taught in setted classes, aligned to anticipate Tiers of entry. Given the prior attainment of our cohort, the majority of our students follow a Higher Tier pathway. We follow the AQA Linear 8300 syllabus. The resources used to deliver lessons are largely those created and developed by staff themselves, via access to Kerboodle and other external materials. Resources are shared on central drives.

Where possible, teachers follow their groups throughout Key Stage 4 to provide consistency in these crucial years. A highly structured intervention programme is in place at Key Stage 4 in order to support the whole school priority of raising attainment and progress of students in English and Maths. Students continue to access HegartyMaths to support their learning during Key Stage 4.

Key Stage 5

Our Sixth Form students follow the AQA A-Level Mathematics syllabus. Teaching at Key Stage 5 involves engaging and challenging activities that are used to interest and enthuse students as well as developing understanding and practicing the skills that are required. This is in conjunction with promoting independence and the rigor needed to be successful in post-16 mathematics. We use Oxford Maths online text books to support student self-study. Results at A-level reflect ongoing success, with 58% of pupils achieving A* - C, of which 42% A*-B.

Enrichment

Each year around 75 pupils at SNA take part in the UKMT Maths Challenge. We enter students at all three levels: Junior, Intermediate and Senior. Those students demonstrating skills in problem solving, logical reasoning and/or general mathematical ability are chosen by their teachers for entry into the Maths Challenge. In addition to the individual challenges, we take part in the UKMT Team Maths Challenge. Four students from Years 8 and 9 showing strong ability in the individual challenges are chosen to work together as a team in competition with other schools from the region. We support students in running a chess club and card club at lunchtimes.

The Maths team at SNA work hard to create activities and learning episodes that build confidence and encourage active engagement of students in learning. We believe in looking for the logic in all student responses as a means to unpick misconceptions and celebrate mistakes as a means of learning. The 2017 OFSTED report noted that, across the Academy,

“Good relationships between pupils and teachers support learning and encourage pupils to answer questions in the classroom, even when they might be wrong.”

We are looking now to add to our team an energetic and enthusiastic teacher who can take a lead role in all these aspects of Mathematics at South Nottinghamshire Academy.

In the next two years the department considers its main priorities to be:

- Continue to improve the progress for all students, with ongoing focus on Most Able
- Continue to improve the proportion of 5-9 grades at GCSE
- Continue to close the gap in attainment for disadvantaged students
- Increase the level of challenge and engagement at Key Stage 3
- Increase the proportion of Key Stage 5 students taking a Mathematics course
- Teaching and learning development on assessment for learning, questioning, providing quality feedback and collaborative learning.

Katie Pollard
Faculty Leader of Mathematics