

Alexandra House
33 Kingsway
London
WC2B 6SE

T 08456 404040
F 020 7421 6855
www.ofsted.gov.uk



01 June 2009

Mr R Sandhu
Headteacher
Guru Nanak Sikh VA Secondary School
Springfield Road
Hayes
UB4 0LT

Dear Mr Sandhu

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 30 April and 1 May 2009 to look at work in mathematics.

As outlined in our initial letter, as well as looking at key areas of the subject, the visit had a particular focus on the effectiveness of the school's approaches to improving the quality of teaching and learning in mathematics.

The visit provided valuable information which will contribute to our national evaluation and reporting. Published reports are likely to list the names of the contributing institutions but individual institutions will not be identified in the main text. All feedback letters will be published on the Ofsted website at the end of each half-term.

The evidence used to inform the judgements made included interviews with staff and students, scrutiny of relevant documentation, analysis of students' work and observation of lessons.

The overall effectiveness of the subject, mathematics, was judged to be good.

Achievement and standards

Achievement in mathematics is good and standards are exceptionally high.

- Students start at the school with attainment that is slightly above average. They make good progress to reach exceptionally high standards at GCSE. In 2008, attainment fell somewhat because girls' attainment dropped.
- Attainment at Key Stage 3 rose in 2007 to reach an exceptionally high standard and continued to rise in 2008. This shows good improvement.
- In the sixth form, attainment is average and rising. At A level, students' progress has improved and is now good, while progress at AS level is satisfactory.
- Students with learning difficulties or disabilities receive good support and make similar progress to their peers.
- Students' outstanding attitudes and behaviour contribute well to their progress.

Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is good.

- Much teaching is consistently good and some is outstanding. There is also a substantial amount of satisfactory teaching. A number of non-specialists teach some mathematics lessons.
- There are strong relationships between teachers and students. Teachers know very well the needs of individual students and provide them with support in and out of lessons to ensure that they do well. Teachers explain work clearly and make sure that each student is able to attempt it. They are very successful in raising each student's confidence. Typically, individuals and groups come to the front of the room and explain to the class how they have answered a question.
- In the best lessons, students are given exciting problems to solve and encouraged to work in groups and with information and communication technology (ICT). These problems focus on key concepts, encourage thinking and understanding, and involve practical work. They give students independence to try problems that are targeted at the right level of challenge for them.
- In the satisfactory lessons, work is not matched well enough to each student's mathematical needs so some find it too hard and others are not challenged, for example, they spend time listening to or making notes about things they already know. Teachers do not move around the room to check when students are stuck or find work too easy. They do not use mini-whiteboards to involve all in answering questions or doing rough work. Some students say they would like more interactive work, group work, discussion and opportunity to use ICT.
- The quality of marking varies. Some is very frequent and detailed with useful guidance on how to improve. Students say that teachers provide helpful follow-up in person, even if details are not written in their book. Other marking is mainly by the student with some ticks and brief comments from teachers.
- Students know their current and target levels or grades but are not always aware of the requirements for reaching the next National Curriculum level or grade, even when they are displayed on classroom walls. Students do not routinely make self-assessments against lesson objectives or overall levels.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is satisfactory.

- The programme of work for each year group meets requirements. It is based mainly on published schemes. The school does not provide guidance for staff on how to introduce topics, such as through conceptual approaches, or to link them to the school's context. Assessment is mainly through tests which do not reflect problem-solving skills well.
- Some puzzles, cross-curricular challenges, enterprise tasks and investigatory activities are used to broaden students' skills in using and applying mathematics but there is no systematic development of these skills for all students.
- Interactive whiteboards are used regularly, but often only for handwritten work, so much of their potential is missed. Use of other ICT resources is growing, with some staff using a graphing package that has helped students to understand trigonometric graphs. Year 11 students welcome the online revision materials. More generally, students do not have enough hands-on use of ICT across the mathematics curriculum.

- The sixth form offers A-level options in statistics and mechanics. One student is studying further mathematics independently, rather than through the Further Mathematics Network.

Leadership and management of mathematics

The leadership and management of mathematics are good.

- You and senior leaders work together with the head of mathematics to enable students to achieve high standards and make good progress in mathematics. In this small school, where mathematics is taught by many teachers who also teach other subjects, you have achieved good leadership and management through this joint approach, although there are areas of weakness. Through regular line-management meetings you have helped to keep the focus on students' performance and teaching quality. The very careful tracking of students' attainment and follow-up of any underachievement are real strengths of the school, although a few students did not reach the grades they were capable of in 2008. Senior leaders have a clear view of the strengths and weaknesses in provision. You have recently made a strategic appointment of a deputy head of mathematics that provides effective expertise to strengthen the leadership and management within the mathematics department.
- Monitoring of teaching quality has led to improvement. An area of significant weakness was addressed quickly, and students' concerns responded to well. Most observations carried out jointly with the inspector were accurate but some were generous. Some earlier observations may also have been generous because they did not place sufficient emphasis on students' learning and progress. Areas identified for development currently and previously are not focused enough to improve the quality of teaching to consistently good or better. They have not been supported systematically and then monitored. Sometimes they do not include key areas of subject teaching or points that could lead to students being challenged to think and understand better.
- Evaluation of performance in national assessments is accurate. It has a clear focus on attainment, which has helped to drive up standards, but it misses opportunities to evaluate students' progress.
- Development plans are detailed with clear success criteria, although many refer to the school's action rather than its intended impact. Some are linked to overall attainment, which has helped drive up standards, but there is not enough emphasis on progress. Evaluation indicates soundly whether success criteria are met, but does not provide an overview of the quality of teaching or provision. There is little written evaluation of the impact of initiatives and no clear link between evaluations and plans.
- There are some mathematics targets within the school's business and enterprise specialism plan that have prompted useful cross-curricular activities. A number of other targets have not been met.

Subject issue: the effectiveness of the school's approaches to improving the quality of teaching and learning in mathematics

- Lesson observation has been used adequately to raise teaching quality but there is room for this to be more thorough to ensure rapid improvement to consistently good or better teaching.

Areas for improvement, which we discussed, included:

- building up conceptual understanding from the outset, with topics introduced in ways that require thinking and involve group work and discussion
- challenging all students, including through monitoring their progress during lessons and making adaptations accordingly
- providing activities and guidance in schemes of work to ensure all students receive entitlement to conceptual approaches, using and applying mathematics, practical work, discussion, and use of ICT across the subject
- using more assessment against national criteria and self assessment
- sharpening evaluation and planning for improvement, including monitoring of teaching quality and provision with clear areas for development that are identified and acted upon within short timescales.

I hope these observations are useful as you continue to develop mathematics in the school.

As explained in our previous letter, a copy of this letter will be sent to your local authority and local Learning and Skills Council and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Gill Close
Her Majesty's Inspector