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Mr M Sabur Headteacher Elthorne Park High School Westlea Road Hanwell London W7 2AH

Dear Mr Sabur

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of the staff and students, during my visit on 10 and 11 March 2010 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 how well the curriculum secures progression in mathematical understanding for every student.

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.

The evidence used to inform the judgements included interviews with staff and learners, scrutiny of relevant documentation, analysis of students' work, observation of 10 lessons; and short visits to four others.

The overall effectiveness of mathematics is outstanding.

Achievement in mathematics

Achievement in mathematics is outstanding.

- Attainment in mathematics has been above the national average for the last three years and GCSE results continue to improve. Standards are also rising in Key Stage 3. During the inspection, students showed welldeveloped basic skills. For example, Year 7 students multiplied decimals with confidence and students studying for higher tier GCSE showed a good level of competence in algebraic manipulation.
- Students' progress in mathematics is outstanding, placing the school among the top 5% nationally for its contextual value-added score. It is

equally strong across all groups of students, including those with special educational needs and/or disabilities. This is because the school has a very well-organised programme of academic monitoring and support that ensures no student is left behind in mathematics. Students develop a good understanding of mathematical ideas and, therefore, expect mathematics to make sense. This helps them to develop good critical thinking skills.

Students are well behaved in lessons and the great majority are keen to learn. Students are becoming used to talking about mathematics because their lessons give them plenty of opportunities to explore ideas.

Quality of teaching of mathematics

The quality of teaching of mathematics is good.

- The mathematics department has worked hard to develop a shared approach to teaching mathematics. This includes three phases. New topics are introduced through exploratory activities which help students to make some initial sense of the new ideas. The teacher then draws their experiences together, clarifying the key points and helping students to organise their new knowledge. Finally, students work through a range of routine exercises and more challenging problems to help them secure and extend their knowledge.
- The best learning takes place in lessons where students are given time to attempt challenging questions under the teacher's supervision, particularly where the teacher is able to diagnose and correct any misconceptions or errors as they occur. Work is marked regularly and students report that the feedback is usually helpful. There is some inconsistency in the quality of assessment, but most students know their targets, what they need to do to improve and where to get help.
- Teaching was less effective in a minority of lessons seen during the inspection, but learning was never less than satisfactory. For example, in one class, students made progress despite a rather confusing explanation; in another, the exploratory activity did not stretch the most able.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is good.

- The school ensures that every student achieves worthwhile mathematics qualifications. All students are prepared for GCSE mathematics and a sizeable minority are also entered for GCSE statistics. The latter is targeted at the highest attaining students, who are expected to cover the specification through a mixture of regular mathematics lessons, independent study and additional study support.
- Early entry to GCSE is sensibly used sparingly. It allows a handful of the highest attainers to take additional mathematics in Year 11 and also ensures a qualification for the few students who are at risk of disaffection. In the sixth form, the decision to offer the International Baccalaureate is consistent with the school's emphasis on thinking skills.

Effectiveness of leadership and management of mathematics

The effectiveness of the leadership and management of mathematics is outstanding.

- The school's excellent succession planning has ensured strength at all levels of leadership and management in mathematics and an outstanding capacity for further improvement. The senior leaders, the head of specialism and the departmental leaders provide a clear and coherent focus on student outcomes that remains true to the school's ethos. Their rigorous and realistic self-evaluation takes good account of lesson observations, work scrutiny, results analysis and students' views.
- The school's specialist status plays an outstanding part in securing high achievement in mathematics by supporting the very effective intervention classes; enrichment activities such as mathematical challenges; the rich curriculum in mathematics and cross-curricular themes. The department is very well organised. It has a strong core of effective teachers who provide good role-models for their less experienced colleagues.

Subject issue: how well the curriculum secures progression in mathematical understanding for every student

- The curriculum includes much work to develop students' understanding and competence. New topics are sometimes introduced by challenging students to find solutions using the mathematics they already know. Others are based on 'rich tasks' that allow students to respond creatively. This approach is consistent with the school's philosophy of promoting thinking skills and independent learning.
- The schemes of work for Key Stage 3 are being progressively rewritten to capture the good practice that has been developed. The nearly complete Year 7 scheme provides a good model for the others, by recommending particular activities, resources and exercises to be used for students at different levels of attainment. However, the schemes of work do not make clear how students' skills of using and applying mathematics are developed progressively over time.
- The curriculum makes a good contribution to students' numeracy by ensuring that students use mathematics in real-life contexts and work out the implications of their mathematical solutions. During the inspection, one group of students drew and interpreted graphs based on mobile telephone tariffs and another used various menus to work out the cost of eating out.
- Information and communication technology is used well to help students to visualise mathematical ideas and also to provide a means of independent study. Good use is made of a range of resources to develop mathematical thinking.

Areas for improvement, which we discussed, include:

continuing to develop the schemes of work to match the quality now seen in Year 7 and enhance them by showing more clearly the progression of skills in using and applying mathematics improving assessment by raising all teachers' skills in diagnosing and correcting misconceptions and errors to the level of the best.

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

As we explained previously, 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

Stephen Abbott Her Majesty's Inspector