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Ms Y Powell Executive Headteacher Little Ilford School Browning Road Manor Park London E12 6ET

Dear Ms Powell

# **Ofsted 2010–11 subject survey inspection programme: mathematics**

Thank you for your hospitality and cooperation, and that of the staff and students, during my visit on 12 and 13 July 2010 to look at work 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 without their consent.

The evidence used to inform the judgements included interviews with staff and students, scrutiny of relevant documentation, analysis of students' work and observation of 11 lessons.

The overall effectiveness of mathematics is good.

#### **Achievement in mathematics**

Achievement in mathematics is good.

- Students join the school with levels of attainment which are well below average. In recent years, they have added outstanding value during each key stage to reach average standards at GCSE. Data show that current Year 11 students are on track for higher attainment and progress. The school aims to enter all students for GCSE; very few did not pass last year.
- No marked difference exists in progress between girls and boys. High attainers take GCSE early. Although some go on to make strong progress at AS level, progress for others is more mixed.
- The outstanding progress that students make arises from the good teaching in lessons, the thorough support they receive outside lessons,

and the very positive attitudes to work that the school nurtures. Students' degree of understanding and independence is less well developed.

### **Quality of teaching of mathematics**

The quality of teaching of mathematics is good.

- Teaching varies across the department. Some lessons are based more firmly on understanding and thinking but others more on learning of methods. Teachers take risks in their choice of interesting and engaging activities, such as teaching in an outside covered area where students can apply number and measuring skills. Teachers ask questions of carefully selected students, and encourage all of them to share responsibility, listen to each other and use initiative. Teachers use key words effectively to extend vocabulary in mathematics and in real contexts.
- Teachers' thorough explanations and support help students to exceed expectations based on their previous attainment. The school has identified that students do not develop the independence and confidence to apply their learning across the curriculum and has begun to introduce real contexts, group work and discussion into lessons. Sometimes these ways of working do not ensure fast progress because the problem is not presented in a sufficiently suitable context to give students a real desire to find an answer or solve the problem. Activities do not necessarily focus on the most important mathematical aspects of the problems.
- Where lessons are less successful, methods are sometimes given without ensuring that students understand the concept or why the method works, and they are given methods to refer to rather than developing their confidence in remembering and deducing them for themselves. Some teachers use a range of methods and encourage students to compare them, but this approach is not used consistently. Work is not always differentiated well enough, so some students repeat work they already know. Some teachers do not circulate to check carefully whether work is correct, too easy, or being attempted and adapt their teaching accordingly. They do not always listen carefully to what students actually say to pick up potential errors.
- Assessment for learning is developing well. Feedback at the end of a unit identifies areas to focus on. Some students check their work against level or grade descriptors to see what they need to do to improve. Students are usefully referred to individual computer work for catching up in weak areas and find this helpful. However, in lessons, students do not regularly check the quality of their own work or whether they understand it; they rely on referring to answers or the teacher. In students' books, much of the work is unmarked by students or teachers so it is unclear whether it is correct, and there is little written advice on how to improve.

#### **Quality of the mathematics curriculum**

The quality of the mathematics curriculum is good.

- Provision is constantly reviewed and adapted to enhance students' progress. The Year 7 scheme of work includes good problem-solving activities with real-life contexts, such as a project on carbon footprints. It also contains some investigatory activities. Schemes of work for other years ensure appropriate coverage but not approaches that build conceptual understanding or clear progression that challenges all students. They do not require that all students receive a structured development of skills in using and applying mathematics or hands-on access to information and communication technology (ICT) to explore mathematical concepts. Nevertheless, there are many opportunities to apply mathematics in real contexts and to revise specific topics or carry out homework using ICT. Though the use of realistic contexts and group activities has increased this year, practical apparatus and mini-whiteboards could be used more often to develop and check understanding.
- The mathematics specialism has been very effective in developing a range of pathways that meet students' needs well. Those studying Diploma or alternative courses receive functional skills lessons in addition to the full complement of mathematics teaching. Higher attainers take mathematics GCSE in Year 10, then have the opportunity to study all or part of the AS level course in Year 11. Although many welcome this and do very well, some find that it has not optimised their GCSE grade. As part of the mathematics specialism, very strong links with all of the main partner primary schools secure good curriculum transition, and special provision for gifted and talented pupils prepares them well for Year 7.
- Students speak highly of the support and individual tuition provided. Briefing for specialist assistance is good although support is occasionally too directed. Many opportunities are provided for revision and support after school and on Saturdays, although some lower attainers have missed out on this. The school is rightly prioritising improved confidence, initiative and application of mathematics to reduce reliance on support outside lessons.

#### Effectiveness of leadership and management of mathematics

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

- There are many strengths that have led to students' outstanding progress and the continued improvements in results. You and the line manager for mathematics have facilitated improvement particularly well. The accurate evaluation and constant drive for improvement have correctly prioritised changes to teaching and the curriculum to enable students to apply their learning more effectively, although they do not emphasise improved understanding. The new mathematics curriculum leader works well with the team of staff to support them in developing these new approaches.
- Development plans have clear success criteria and pertinent actions leading to them, based on accurate evaluation. Nevertheless, they do not identify the improvement of teaching as the key priority or specify how it

will be achieved. In lessons observed jointly, judgements were accurate. However, staff have not been supported to evaluate their own lessons perceptively enough and then access development opportunities to underpin continuous improvement. The lesson observation form does not give sufficient weight to the progress of groups throughout the lesson.

- Improvement has been enhanced through teachers sharing responsibilities and ideas. Monitoring of students' books has identified some areas for improvement but has not focused enough on quality, progression, or entitlement to provision, such as through investigatory work or conceptual approaches. Much intervention has clearly led to improvement, but there is scope for sharper evaluation of its quality and impact. Teachers collect students' views that inform future plans; sometimes this is not frequent enough to pick up any concerns soon after students start new courses and inform rapid improvement.
- The good monitoring system is used well to identify students who need to improve and to enable teachers to take responsibility for achieving this. Data provided help teachers to evaluate the achievement of Year 11 classes accurately, but sometimes they miss opportunities to reflect on how this could improve their practice. There is room for data to more readily indicate to teachers the progress of groups of students, including those taking AS level.

#### Areas for improvement, which we discussed, include:

- raising the quality of teaching further by focusing on:
  - building students' understanding and monitoring its extent throughout lessons
  - developing independence through involving students more in checking and assessing the degree to which they understand
- revising schemes of work to:
  - structure the progression through the curriculum to develop key concepts
  - deepen understanding through the use and application of mathematics
- supporting teachers in improving teaching quality through:
  - prioritising actions in development planning
  - sharpening the focus and follow up of lesson observations.

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

As explained previously, a copy of this letter will be sent to your local authority and will be published on the Ofsted website under the URN for your school. It will also be available to the team for your next institutional inspection. Yours sincerely

## Gill Close Her Majesty's Inspector