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Dear Mrs Chapman

Ofsted 2008-09 subject survey inspection programme: mathematics

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 11 and 12 February 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 10 lessons.

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

Achievement and standards

Achievement in mathematics is outstanding and standards are exceptionally high.

- Standards in mathematics are exceptionally high: more than 90% of students gain A or A* grades at GCSE; nearly half take mathematics at advanced level, where 80% gain A or B grades; further mathematics is also very strong.
- Students have a well-developed sense of number, and a good command of standard techniques. They present their work extremely well and show a good understanding of why the mathematical methods work.
- Relationships in the classroom are excellent; students are enthusiastic about learning and often ask questions, some quite searching. However, students' potential to think for themselves and to make deep connections in mathematics

is not fully realised because teachers occasionally give more guidance than students need and do not always ask really probing questions.

Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is outstanding.

- The teaching observed during the visit was good with some outstanding features, notably the quality of relationships, teachers' excellent classroom management skills and their use of informal assessment to identify and address students' needs.
- The outstanding achievement and high participation levels post-16 show that the impact of teaching and learning over time is outstanding.
- Learning proceeds at a rapid pace because teachers provide students with opportunities to explore ideas as well as plenty of challenging exercises.
- Topics are covered very thoroughly and marking is informative, so students can identify what they need to do to improve.
- The targets set for students are personalised because teachers know their students well. Very good support and guidance is offered to students, especially those at the A/B grade borderline for GCSE.
- Teaching is outstanding when teachers make mathematical links and encourage students to work out methods for themselves, question assumptions and think about the meaning of their answers. Teachers do not always have the confidence to let students discover and overcome difficulties for themselves.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is outstanding.

- Students enjoy mathematics. There is an excellent balance of courses to meet their needs. All courses develop students' ability to use and apply mathematics, but this feature is strongest in Key Stage 3.
- Teachers are prepared to go beyond the strict requirements of syllabuses, for example by including more work on justification and proof or by covering enough extra material to show that how ideas come together in more advanced work.
- Teachers make very good use of information and communication technology to support their teaching, but students do not have enough hands-on experience.

Leadership and management of mathematics

The leadership and management of mathematics are outstanding.

- The department benefits from clear procedures and very good documentation, including the departmental handbook, schemes of work and weekly newsletters.
- There is a regular and well documented programme of monitoring and evaluation that includes analysis of examination outcomes, lesson observation, scrutiny of students' work, focus groups to test students' opinions, and checks on teachers' marking and record keeping.
- The development plans are realistic and have ambitious aims linked to a vision of enhanced learning that will prepare students to be future leaders.

- Two aspects of leadership are less advanced: the rationale for the actions proposed in development plans is not always explained; and the impact of the actions on achieving the vision of enhanced learning is not fully evaluated.

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

- Most teachers have a very good knowledge of mathematics and a well developed awareness of how to teach it successfully. This has been enhanced in the last few years by effective professional development in the use of technology, especially the online database of resources and the interactive white-boards.
- Much good development arises from regular departmental meetings, collaborative curriculum development and the inclusion of self-evaluation and peer monitoring in the evaluation process.

Areas for improvement, which we discussed, included:

- supporting the school's vision of enhanced learning by encouraging students to think for themselves and by continuing to develop relevant aspects of teaching and learning such as using and applying mathematics, exploratory and practical work and problem solving
- being more explicit about the rationale for the actions proposed in development plans and evaluation of their impact on achieving the vision of enhanced learning.

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

Stephen Abbott
Her Majesty's Inspector