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Dear Mrs Green

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 10 and 11 November 2008 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 eleven lessons.

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

Achievement and standards

Achievement in mathematics is outstanding and standards are well above average.

- Students enter the school having attained above average standards at primary school. They make excellent progress in Key Stage 3 to reach well above average standards.
- Students continue to make very good progress to reach very high standards at the end of Key Stage 4. In 2008, all students gained a GCSE pass with 87% of students gaining grades A* to C and over 40% gaining grades A* or A.
- The school has been teaching A level in conjunction with a neighbouring school and results have been well above average. The school now has its own sixth form and the AS results in 2008 were well above average. The sixth form has

quickly become established and successful. Students' very positive attitudes towards the sixth form and mathematics can be seen by over 50 students studying A level mathematics in Year 12, and ten taking further mathematics.

- Students are successful in a variety of competitions and challenges, particularly for gifted mathematicians. Students with learning difficulties receive very good support to ensure they make outstanding progress alongside their peers.
- Students' attitudes and behaviour in lessons are very good. Students said the lessons which often involved them working in groups or investigating and sharing ideas, helped their understanding. Sixth form students said that they enjoyed and responded well to theory lessons which allowed them to understand their work.

Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is outstanding.

- Lessons are highly effective because of excellent relationships and a very wide variety of activities which enthuses students. They are very well planned and engaging and not over-reliant upon textbooks or worksheets.
- Lessons, across all years, often include opportunities for students to work in groups and discuss and investigate areas of mathematics. Objectives are effectively shared with students and often include development of understanding based around problem solving or reasoning.
- Teachers use interactive whiteboards well, for example demonstrating the dynamic nature of geometry when exploring angle relationships.
- Assessment is very good; teachers mark work thoroughly and give very helpful comments on how students may improve. Targets are very well understood by students who commented on the usefulness of ongoing assessments in letting them know if they are on track to meet their targets. They said they receive additional support if they start to fall behind.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is outstanding.

- Very comprehensive schemes of work, based around the National Strategy framework, ensure students work at the appropriate level and do not needlessly repeat work. Initial lessons on new topics are meticulously planned so that all students have the opportunity to work in mathematics in an interesting and highly enjoyable way.
- Excellent use is made of investigations and group work to engage students. For example, high attaining students were working on a puzzle which required them to formulate and solve a large number of simultaneous equations. There was a real buzz of enthusiastic competition as students worked exceptionally well in groups to crack the problem.
- Many lessons include objectives to improve students' thinking skills. Staff make good use of additional resources, for example on social and emotional aspects of learning. Students in Year 9 follow a course on financial mathematics which is further developed by concentrating on functional skills in Years 10 and 11.
- Students have some opportunities to develop their skills in information and communication technology (ICT) within mathematics but more could be done to enhance these skills.

- Two groups of students enter GCSE early and then complete GCSEs in additional mathematics and statistics. Many of these students, and others, go on to take mathematics at A level.

Leadership and management of mathematics

The leadership and management of mathematics are outstanding.

- Leadership of the department has been highly successful in developing a coherent and extremely effective team.
- The subject leader, yourself and senior leaders have an excellent overview of the strengths of individual teachers and how to improve the overall quality of lessons. The subject leader has developed an appropriate plan to improve standards further.
- The success of mathematics in the sixth form, in such a short time, is testament to the work of the whole department in making mathematics relevant and enjoyable across all years. The subject leader has given staff the direction and support to enable this to occur.

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

- The school has been extremely successful in improving the quality of teaching within mathematics lessons so that they are now highly motivating and enjoyable. Mathematics is one of the leading departments in the school's drive to raise the quality of teaching and learning from good to outstanding.
- Teaching ideas and strategies are regularly shared and the head of department has been very successful in working with staff so that all lessons now include relevant, challenging and interesting activities that motivate students.
- The subject leader has utilised her experience as a National Strategies' consultant to empower teachers and bring about sustained improvements.

Areas for improvement, which we discussed, included:

- increase opportunities for students to develop their ICT skills within mathematics.

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

Michael Smith
Her Majesty's Inspector