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Mrs L Underhill
Headteacher
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Dear Mrs Underhill

Ofsted survey inspection programme – mathematics

Thank you for your hospitality and cooperation, and that of your staff, during my visit on 21 and 22 September 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 approach 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 11 lessons.

The overall effectiveness of mathematics is outstanding.

Achievement in mathematics

Achievement in mathematics is outstanding.

- Students enter school with attainment that is above average. They make excellent progress to reach well above average standards in their GCSE examinations. The provisional 2009 results show that GCSE passes at the higher A* to C grades continue to be extremely high, with almost 90% of students gaining these grades and over 40% gaining an A* or A grade.
- In 2009, a group of 36 Year 10 students completed their mathematics GCSE examinations and all gained either a grade A* or A, with the vast

majority gaining the highest grade. They will complete an AS in Year 11. For the previous cohort who followed a similar route, almost a half gained A grades in all of their AS units and many are now completing both further mathematics and mathematics A levels. The school has a strong history of students following a taught further mathematics course and results are very good. At present, 25 students are completing further mathematics in Year 12.

- In 2009, 47 students took A-level mathematics examinations. All passed with over half gaining a grade A. All of the ten who sat further mathematics gained at least a grade C, with almost three quarters gaining the top grade.
- Attitudes in mathematics are very good and behaviour is excellent. Students stated that lessons are enjoyable because staff care and support them well. They also said that they like activities which involve them in investigating problems and allow them to work together and discuss their work. They went on to explain that there was a lot of emphasis on teachers helping them to understand their work rather than just follow a number of rules.

Quality of teaching of mathematics

The quality of teaching of mathematics is outstanding.

- Very strong relationships between teachers and students ensure excellent behaviour and engagement by students who, in turn, respond very well to challenging and thoroughly planned lessons. Teachers share resources and teaching ideas. They make very good use of the interactive whiteboards, especially at the start of lessons. This includes excellent use of graphical packages to demonstrate mathematical relationships so that no time is wasted on drawing graphs.
- The strong emphasis on improving the quality of teaching by ensuring a greater variety of activities within lessons has resulted in teachers' good use of investigations to introduce or consolidate topics. In the best lessons, students have plenty of opportunities to discuss mathematics and work together.
- Assessment is ongoing within lessons with teachers checking constantly how well students are learning and intervening when appropriate. Marking identifies any areas of concern. Students say they receive very good support when they have had problems with their work.
- Teaching assistants and sixth-form mentors work well with individual or groups of students.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is outstanding.

- High-quality planning is shared among staff so that all have good access to a wide variety of teaching activities, many of which include suitable

investigations or incorporate elements of information and communication technology (ICT). A rich bank of tasks is used well to enhance all students' thinking.

- Good support is given to students with special educational needs and/or disabilities and those individuals who miss lessons when they attend alternative provision on one afternoon each week.
- Students are entered for GCSE examinations at appropriate times. The school has a very well-developed plan to ensure all achieve highly at GCSE and go on to further mathematical challenges. The vast majority follow the higher tier GCSE specification and the scheme of work ensures they cover all topics. This is particularly demanding for some students who nevertheless respond well. GCSE statistics is studied by one group who gain very good results.
- The department's tradition of success at GCSE and A level has led to two further mathematics groups in each sixth-form year and more than 50 students studying mathematics in Year 12. This is well above that typically seen in a comprehensive school of this size.

Effectiveness of leadership and management of mathematics

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

- The change in leadership of the department through internal promotion has secured the continued commitment to improvement. The present leader has been effective in setting his expectations of how mathematics should be taught. The departmental team works very well together, providing mutual support.
- Students are set challenging targets which are used effectively to motivate and guide them to achieve very well. Staff monitor the progress of students against their targets and intervene as appropriate to ensure all achieve. Particularly effective systems are used by the subject leader to oversee how well the cohort of students is progressing.
- You have ensured that mathematics is central to the school's development and improvement and pivotal to its specialist status.

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

- The collegiate work of the department has brought about sustained improvements to the quality of teaching and to standards.
- The subject leader has a good overview of individuals' strengths. His strong ambition to carry on improving the quality of learning is understood and shared by all staff.
- He has devised an appropriate plan to improve teaching but as yet this does not include a programme of monitoring, support and evaluation.

Areas for improvement, which we discussed, included:

- improving the learning in lessons where it is not outstanding by allowing greater opportunities for students to discuss mathematics and work in pairs or groups
- ensuring subject leaders complete a programme of monitoring, support and evaluation, so that they are better able to judge the success of departmental developments in teaching.

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 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