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Dear Ms Potts

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 March 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 eight lessons.

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

Achievement and standards

Achievement in mathematics is good and standards are above average.

- Students now make good progress in mathematics following a few years when progress was either below, or in line with, expectation. Standards at GCSE have improved over the last few years and, in 2008, 69% gained grades A* to C. The school's records indicate that this should rise to around 73% in 2009.
- A-level results have improved significantly over the last few years. Results of modules taken by the present cohort show that they are making good progress and a far greater proportion are going on to complete the A level rather than stopping at the end of Year 12. Standards in further mathematics have also improved with greater numbers of students taking this option. There are now 40

students following A-level mathematics and even more have indicated that they intend to opt for the subject next year.
- The school has a comprehensive system to track the progress of students towards their challenging targets and to aid intervention when necessary. This system includes informing parents on how students are progressing and also links between attendance and progress.
- Students' attitudes towards mathematics are good. They say they enjoy lessons, although a few said their lessons were less interesting.

Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is good.

- Lessons are generally engaging and build upon good relationships between staff and students. Students are industrious in lessons which include a variety of activities, especially when these include opportunities to work together in groups and discuss their mathematics. However when teaching is not as good, lessons often have less pace and students spend too much time listening to their teachers.
- In the best lessons, teachers question students well, expecting full answers and explanations. They use students' responses to identify teaching points. In other lessons, there are missed opportunities; for instance, when a wrong answer is given, requiring the student to explain his/her reasoning makes it possible to identify, and rectify, the error or misconception.
- Behaviour observed was always at least good.
- Effective use is made of electronic whiteboards.
- Assessment is often well directed with good use of objectives. However, in some lessons, objectives are not shared meaningfully with students, so although written in students' books, they have little relevance. Marking is of variable quality with some being effective in supporting students to improve but, at other times, marking is infrequent and fails to identify errors in students' work, leaving them unclear what is right and what is wrong.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is good.

- Good schemes of work support staff through reference to various teaching activities and tasks that engage students in using and applying their mathematics and enhance their investigational and reasoning skills. However, lesson objectives rarely refer to these skills and this is a reason why some groups are not used to explaining their thinking as well as giving final answers.
- There is good reference to financial literacy within work in Key Stage 4. Also work covered from the different countries visited as part of the school's language college status, for example work with mathematics from Japan.
- 'Study plus' has been introduced to support lower attaining students and includes appropriate activities to develop learning skills as well as mathematics.
- Information and communication technology (ICT) is used well to develop mathematical ideas. Students also access homework and support materials via the school's website.
- The increased success of the subject at GCSE and the greater challenge for more able mathematicians, including taking part in national mathematics challenges, are having a positive impact on uptake at advanced level.

Leadership and management of mathematics

The leadership and management of mathematics are good.

- The department is very well led. The subject leader has quickly developed a good team spirit so that staff work closely together.
- The subject leader has a good overview of departmental strengths and areas for development, and has an appropriate plan to bring about improvements.
- The department holds weekly meetings to discuss and develop teaching activities. Staff regularly share good ideas and support each other with specific areas, for example the use of ICT.
- You, along with your senior management team, have ensured that work in mathematics has been improving as part of the whole school focus on improving provision and achievement. The strong focus on strengthening the department by carefully appointing appropriately qualified staff has led to improved quality of provision and higher standards.

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

- The collegiate approach by staff within the department has meant that their mutual support has brought about significant improvements to the quality of teaching. Teachers regularly discuss and share good teaching strategies and help each other with areas of expertise.
- The department has a very good capacity to improve by building upon, and utilising, the skills of some excellent teachers who could act as lead practitioners to bring about further improvements.
- Effective support was given by the local authority consultant until she was transferred to another school as part of the National Challenge support programme.
- Good assistance for further mathematics A level has been provided from the further mathematics centre.

Areas for improvement, which we discussed, included:

- using students' responses more effectively to identify teaching points and to remediate misconceptions
- improving students' reasoning skills by expecting students to give reasons with their answers and ensuring lesson objectives identify ways in which students develop their thinking/reasoning skills
- raising the quality of marking, increasing its frequency and consistency so that errors are identified and students supported in improving their work.

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