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Mrs A Byrne Headteacher The Derby High School Radcliffe Road Bury Lancashire BL9 9NH

Dear Mrs Byrne

# **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 26 and 27 January 2011 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; observation of five lessons and a one-to-one support session; and a 'learning walk' visiting five lessons briefly.

The overall effectiveness of mathematics is satisfactory.

# Achievement in mathematics

Achievement in mathematics is satisfactory.

- Attainment is average. GCSE results show that the proportion of students gaining an A\* to C grade in 2010 was 63%, compared with the national average of 64%. This is an improvement on the 58% who achieved the same measure in 2009. Results from early entries and the school's monitoring records suggest that the 2011 results should match those of 2010 with a cohort of students whose prior attainment is slightly weaker.
- Attainment on entry is broadly average, but with fewer of the highest attaining students than is typical nationally. Progress data suggest that students' achievement over time is satisfactory given their starting points.

Evidence from lessons seen and students' books indicates that current students make progress in lessons that is in line with expectations.

- Of the Year 11 cohort who left in 2010, most groups made progress in line with expectations. However, boys, especially the least able boys, made less progress in mathematics than they did in all subjects taken together.
- Some students lack confidence and are over-reliant on guidance from the teacher. This limits the development of their independent learning skills.
- Students behave well and show positive attitudes to learning.

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

The quality of teaching in mathematics is satisfactory.

- Teachers are enthusiastic and develop good working relationships with students. They use information and communication technology (ICT) well to present and illustrate mathematical ideas.
- While some teaching has an appropriate focus on developing conceptual understanding, sometimes teachers quote important results rather than justifying them. In some lessons, this leads to an emphasis on technique rather than understanding.
- Teachers' questioning does not always offer students sufficient thinking time, and sometimes gives too much direction to the correct answer.
- Students appreciate the wide range of support offered by departmental staff, particularly in revision sessions in the weeks immediately before examinations. They also benefit from access to a computer-based teaching programme, which helps them to assess their performance in different topic areas, and/or focus on areas of weakness.

# Quality of the curriculum in mathematics

The quality of the curriculum in mathematics is good.

- The curriculum is broad and balanced and includes appropriate reference to developing students' skills in using and applying mathematics. It is designed with the needs of students in mind, with provision adapted well to suit the ability of the students.
- Students on diploma courses benefit from specialist teaching to help them develop functional skills.
- The most able students enter GCSE at the end of Year 10 and achieve results in line with expectations. In Year 11, this group studies an AS level module for one hour each week. Pass rates in this module are modest and the school is rightly reviewing whether this provision offers the best opportunities for these students.
- A wide range of extra-curricular opportunities is effective in promoting positive attitudes towards mathematics. For example, large numbers of students participated recently in World Maths Day and also in the National

Society for the Prevention of Cruelty to Children's Number Day, where they developed their numeracy skills while raising money for charity.

# Effectiveness of leadership and management in mathematics

Leadership and management in mathematics are satisfactory.

- Those involved in teaching the subject share a common purpose. Processes for monitoring the work of the department are well established and effective.
- Teachers share ideas informally and believe that they present mathematical ideas consistently across the department. However, written guidance on developing common teaching approaches is limited.
- The inspection visit found that provision and achievement in mathematics are generally satisfactory, rather than good as judged by the school.
- The department has begun to seek formally the views of students. However, the impact of this is not clear and there is no process for feeding back to the students how their views have informed practice.
- Although average point scores have been steady for the last three years, the proportion of students with GCSE passes at grades A\* to C rose slightly in 2010 and a growing proportion of students are choosing to continue studying mathematics at AS level in local colleges. Other improvements include in-class ICT facilities and teachers' developing skills in using them effectively.

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

- ensuring that all teaching focuses on improving students' understanding, rather than just developing mathematical techniques
- promoting greater consistency in teaching approaches to particular topics by documenting agreed approaches
- developing further the use of the 'student voice'.

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 published on the Ofsted website. It may be used to inform decisions about any future inspection. A copy of this letter is also being sent to your local authority.

Yours sincerely

Paul Chambers Her Majesty's Inspector