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Mr N Anderson  
Headteacher  
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Dear Mr Anderson

### **Ofsted 2011–12 subject survey inspection programme: mathematics**

Thank you for your hospitality and cooperation, and that of the staff and students, during my visit with Lee Northern HMI on 5 and 6 July 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 seven lessons; and shorter visits to five others.

The overall effectiveness of mathematics is satisfactory.

#### **Achievement in mathematics**

Achievement in mathematics is satisfactory.

- Attainment is in line with national averages. In 2010, 68% of students gained a grade A\* to C in GCSE mathematics compared with the national average of 64%. A greater proportion of boys than girls achieved this benchmark. The school's records indicate that the 2011 GCSE results will be close to matching those of 2010 with a weaker cohort of students.
- Students enter the school with attainment that is broadly average and make progress in line with expectations. In 2010, the proportions from different ability bands making the expected three levels of progress during their time in the school followed closely the national pattern. Evidence collected during the inspection confirms that current students make satisfactory and improving progress in lessons and over time.

- Students learn techniques and skills well. Opportunities to discuss mathematics through undertaking sorting and matching exercises are helping students to consolidate their understanding. Students show less confidence when tackling multi-step problems.
- The most recent figures show little difference between the progress made by different groups, including students with special educational needs and/or disabilities. Over the last three years, boys and students on the first level of additional support made better progress than other groups.
- Students' attitudes to mathematics are positive. Students respond well to the set tasks, behave well and seek help when appropriate.

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

The quality of teaching in mathematics is satisfactory.

- Teachers use information and communication technology well to present and illustrate mathematical ideas. They establish good working relationships with students and use a variety of activities, many of them well chosen to promote effective learning.
- While most teaching has an appropriate focus on developing conceptual understanding, some students attempt to solve problems by trying to apply set rules that they do not understand fully.
- The quality of questioning is not consistently good enough to promote mathematical thinking by all members of the class. Teachers sometimes accept responses from a small group of students; on other occasions, they miss opportunities to enhance students' skills in expressing mathematical ideas through extended answers.

### **Quality of the curriculum in mathematics**

The quality of the curriculum in mathematics is satisfactory.

- Key Stage 4 students are able to gain a range of different qualifications. All take GCSE mathematics and almost all pass at grades A\* to G. The majority benefit from opportunities to gain GCSE statistics and/or Adult Literacy and Numeracy qualifications. The most able enter the additional mathematics examination. The school provides extra lessons that focus on functional skills to those students studying for a diploma qualification.
- The scheme of work provides adequate coverage of the National Curriculum. In Key Stage 3, it includes reference to a series of open tasks designed to promote students' skills in using and applying mathematics. Teachers would benefit from further guidance on how to monitor the development of and progression in these skills.
- A wide range of intervention strategies, mainly in Key Stage 4, helps to promote positive attitudes to mathematics and contributes to improved outcomes. The school's specialist status has facilitated employment of a higher level teaching assistant attached to the mathematics department who, in addition to in-class support, makes a full contribution to out-of-school revision and support sessions.

## **Effectiveness of leadership and management in mathematics**

The effectiveness of leadership and management in mathematics is good.

- The 2010 figures give evidence of rising attainment in a range of measures: the average point score rose from being below average to being close to the national average; the proportion of students gaining the highest A\* and A grades increased; and the proportion gaining grades A\* to C rose substantially from 52% to 68%. In addition, more students made the expected three levels of progress.
- Self-evaluation is sound. Improvement plans show that leaders and managers identify accurately strengths and weaknesses, and improving outcomes demonstrate the positive impact of targeted interventions. However, some judgements, including judgements on the quality of teaching and learning, are overgenerous.
- Leaders and managers responded well to the unevenness in attainment between boys and girls in 2010. The school's monitoring records and results from early GCSE entries indicate that the attainment gap will be considerably narrower in 2011.
- Leaders have created an environment in which teachers are prepared to try out new ideas, share resources and broaden their range of teaching styles. Approaches to teaching seen demonstrated a broad measure of consistency. More widespread agreement across the department on using language consistently and guidance on approaches to teaching particular topics would strengthen progression in students' learning.

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

- strengthening teaching and learning by:
  - ensuring that questioning involves more students in the class
  - providing more opportunities for students to express their ideas mathematically
  - reducing students' reliance on remembering rules
- enhancing students' ability to tackle more complex, multi-step problems through clearer structuring of the provision for developing skills in using and applying mathematics.

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**