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Mrs J Sjøvoll Headteacher Framwellgate School Newton Drive Framwellgate Moor Durham DH1 5BQ

Dear Mrs Sjøvoll

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 15 and 16 February 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; and observation of eight lessons with short visits to five more.

The overall effectiveness of mathematics is satisfactory.

Achievement in mathematics

Achievement in mathematics is satisfactory.

- Attainment is above average. For example, GCSE results show that the proportion of students gaining an A* to C grade in 2010 was 72%, compared with the national average of 64%. This is an improvement on the 61% who achieved the same measure in 2009. Results from modular examinations already taken and the school's monitoring records suggest that the 2011 and 2012 results should at least match those of 2010.
- Attainment on entry is above average. Following some underachievement in recent years, recent progress data suggest that students' achievement over time is satisfactory given their starting points. Additional evidence from lessons seen and students' books indicates that current students make progress in lessons that is in line with expectations.

- In the sixth form, attainment is above average and students achieve well. Progress in the sixth form is better than in the main school because teaching is consistently good, students' attitudes are very positive and courses meet their personal needs well.
- There is no pattern of different groups of students making progress at different rates. However, the school rightly recognises that, of the students who gain GCSE grades A* to C, too many gain a grade C rather than one of the higher grades.
- Students in different teaching groups use different terminology when explaining algebraic reasoning, sometimes showing an insecure understanding of the key ideas. A few students take insufficient care over drawing mathematical diagrams.
- Students respond well to set tasks. They work constructively with others and show positive attitudes to learning. They are taking increasing responsibility for their own learning.

Quality of teaching in mathematics

The quality of teaching in mathematics is satisfactory.

- Teachers plan sequences of lessons well. They understand the progression of ideas needed and plan activities that help students to build their learning in small steps.
- Teachers make good use of differentiated tasks so that students of different abilities within the class are able to access the learning.
- Most teaching develops students' understanding of important concepts as well as their proficiency in techniques. Occasionally, teachers present mathematical results without justifying them.
- Teachers make satisfactory use of in-class assessment and form a useful overview of students' progress. However, teachers are sometimes too ready to accept single, short answers to questions, rather than probe further or check more widely the understanding of other students in the group.
- Students benefit from teachers' good use of the school's 'PEN' feedback system, which helps them to identify areas of weakness and possible steps for improvement.
- Students feel well supported in their learning. They appreciate the additional revision classes that are offered prior to examinations in Key Stage 4 and that mathematics staff are always ready to help informally.

Quality of the curriculum in mathematics

The quality of the curriculum in mathematics is satisfactory.

■ The curriculum meets students' needs. In Key Stage 4, four classes study GCSE statistics. In addition, students in the top set study work from the GCSE additional mathematics course and, although few students enter the

examination, this study helps to provide a firm basis for starting AS-level studies in Year 12.

- The scheme of work is well organised and forms a clear structure for staff to follow, including suggested materials. Sometimes it is not clear which topics or activities are essential and which are optional and as a result it is difficult for teachers to map the development of students' skills in using and applying mathematics across the two key stages.
- The good sixth-form mathematics curriculum caters well for the needs of A-level students. For example, students are able to choose which of three applied mathematics options they wish to take. Students also have the opportunity to study further mathematics. The breadth of choice available at A level is a particular strength of the provision.
- A good range of enrichment opportunities helps to promote positive attitudes to the subject.

Effectiveness of leadership and management in mathematics

Leadership and management in mathematics are good.

- Senior leaders have made it a priority to strengthen staffing in mathematics and this is beginning to have an impact. Senior leaders and the subject leader have a clear focus on improving provision and outcomes and this is shared by other subject teachers. A range of monitoring activities helps them to have an accurate view of the strengths and weaknesses of the department and has an appropriate focus on increasing the proportion of students gaining GCSE grade B or above. However, some aspects of recent self-evaluation have been overgenerous.
- Leaders have successfully tackled key areas of weakness so that the quality of teaching is improving. Students' achievement is also improving, as evidenced by: results at GCSE that have risen significantly over the last two years; greater proportions of students making the expected three levels of progress and; attainment getting closer to challenging targets.
- Leaders and managers could monitor more sharply teachers' different approaches to teaching particular topics and their use of particular teaching materials, including investigational work and information and communication technology.

Areas for improvement, which we discussed, include:

- increasing the proportion of students who attain grades B or above at GCSE
- giving clearer guidance on how and where students should develop over time their skills of using and applying mathematics
- developing more consistent approaches to teaching particular topics and the use of subject-specific language that will strengthen the coherence of students' experience.

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