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Mr S Mason Headteacher Thirsk School and Sixth Form College Topcliffe Road Sowerby Thirsk North Yorkshire YO7 1RZ

Dear Mr Mason

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 28 and 29 April 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.

- The school has been very successful in closing the gaps in progress and attainment between boys and girls that existed until recently. Boys are now making at least as much progress as girls.
- Students make good progress, particularly in Key Stage 3. Standards at age 14 are above average. The GCSE A*-C pass rate in mathematics is well above average.
- Students are supported very effectively to maximise their GCSE grades. Teachers provide good support outside lessons and all students participate in a web-based support package that allows them to work on areas of weakness.

- The proportion of students gaining A*-A grades in GCSE mathematics is average. The progress of the most able students in Key Stage 4 is sometimes held back by unnecessary repetition of work they have mastered in Key Stage 3.
- The school's specialist status in mathematics and computing is reflected in the growing number of students studying mathematics in the sixth form and the growing proportion of A and B grades.

Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is good.

- Lessons have clear learning objectives and are well planned to include a variety of activities, including independent and paired work. Teachers make regular use of electronic whiteboards and other specially prepared resources.
- For part of most lessons, students answer questions on wipe-clean miniwhiteboards. They like doing so because they can correct their mistakes quickly, without creating a permanent record. This practice ensures that all students are fully engaged and allows teachers to assess their work effectively.
- Teachers present new ideas to students in ways that aid their understanding, but do not give students enough opportunities to apply their existing knowledge to work out things for themselves.
- Marking does not contribute enough to help students to improve. This is because their written work consists mainly of routine exercises, which they usually get right, with relatively few challenging problems.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is good.

- Teachers make good use of the schemes of work because they are held in electronic format, making them readily accessible and easy to keep up to date. However, the guidance does not specify preferred teaching approaches.
- The department has responded cautiously to the new national guidance on the Key Stage 3 curriculum, introducing a few changes while making sure that the strengths of its previous provision are preserved.
- The temptation to enter the most able students early for GCSE has been resisted in favour of using the time to enrich the curriculum.
- Post-16 participation in mathematics is enhanced by the provision of a two-year AS course. This benefits students who want to continue their study of mathematics, but have not attained the highest grades at GCSE.
- The department's programme of 'Maths Challenge Days' for the most able mathematicians has increased participation in further mathematics.

Leadership and management of mathematics

The leadership and management of mathematics are good.

• Self-evaluation and improvement planning is good. For example, by analysing recent examination results, the departmental leaders successfully identified that boys had been making weaker progress than girls, and devised an action plan. The changes included making greater use of information and communication

technology, building more revision into the course and introducing an element of competition. As a result, the boys have now closed the gap.

- The department has agreed a clear policy setting out the methods that students are expected to use. This is particularly helpful when students experience a change of teacher. Compliance with this policy is monitored well.
- Senior managers adopt a light-touch approach to mathematics because they have confidence in the leadership of the subject.

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

- Teachers provide good informal support to each other, with the more experienced teachers promoting the development of their colleagues well.
- The strategic use of professional development to improve the quality of teaching is not emphasised enough in the improvement plans for mathematics.

Areas for improvement, which we discussed, included:

- incorporating more challenge, particularly for the most able students by:
 - reducing the amount of Key Stage 3 work that is repeated in Key Stage 4
 - setting a higher proportion of non-routine questions
 - giving students more opportunities to apply their existing knowledge to work out things for themselves
- making more use of lesson observation and other forms of monitoring to determine which aspects of teaching and learning can be improved through the strategic use of professional development.

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

Stephen Abbott Her Majesty's Inspector