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Mr L Robinson
Headteacher
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Dear Mr Robinson

Ofsted 2007-08 survey inspection programme – mathematics

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 21 and 22 January 2008 to look at work in mathematics. As outlined in my initial letter, as well as looking at key areas of the subject, the visit had a particular focus on students' enjoyment and understanding of 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. This letter will be posted on the Ofsted website.

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 join the school having achieved above average results in national tests in mathematics at primary school. This level of attainment is usually sustained through Key Stage 3. A dip in Key Stage 3 standards in 2007 was due to staffing issues that are now resolved. The school has rightly identified the progress of the most able students in Key Stage 3 as the key to raising standards further.
- Students make good progress in Key Stage 4, making mathematics the strongest of the three core subjects. Achievement on A-level courses was satisfactory last year, but students currently in Year 13 made above average progress at AS level.
- In contrast, able students make particularly good progress in Key Stage 4, resulting in an above average proportion of A and A* grades. The department is intervening strongly to increase its measure of value added.

- Students' personal development is promoted by their enjoyment of mathematics, their effective development of understanding in most lessons and by their good standards of numeracy. The best teaching develops students' independence.

Quality of teaching and learning

The quality of teaching and learning in mathematics is good.

- The inspection confirmed the school's evaluation that the majority of teaching is good and a minority is less effective. The best teaching includes good questioning and group work to get students thinking about the underlying mathematical ideas. One good lesson combined a careful presentation of the sine rule with well judged guidance on strategies for solving related problems.
- In a few less effective lessons the activities are not matched closely enough to the learning objectives. Teachers sometimes gloss over points that are critical for students' understanding, or focus on details at the expense of the big picture.
- Good use is made of self-assessment via checklists of levelled objectives in students' books and a traffic-light system for them to tell teachers how well they understand. Students' exercise books are well maintained and marked regularly, with consistent use of comments that help them to improve.

Quality of the curriculum

The mathematics curriculum is satisfactory.

- Schemes of work provide a satisfactory basis for medium-term planning. The provision of hyperlinks to key resources is welcomed by teachers. Schemes for each year group have core, support and extension strands, allowing different needs to be addressed. However, there is little to stretch the highest attaining students in Key Stage 3, for whom the extension strand serves as core.
- Good liaison with primary schools ensures continuity in approaches to calculation.
- The curriculum has been enriched by the introduction of Further Mathematics as a full A level and an after-school additional mathematics GCSE option. New units of work on real-life mathematics and financial understanding, and entry to national mathematics challenges have enhanced the Key Stage 4 programme. Considerable thought has been given to the change to two-tier GCSEs and the ending of coursework. The department is rightly keeping a close eye on the potential impact of these changes on students at the B/C borderline.
- Students are not guaranteed equal opportunities to learn to use and apply mathematics or to make individual use of information and communication technology as a tool for learning mathematics.

Leadership and management

Leadership and management of mathematics are good.

- Senior leaders and the head of department have a good understanding of the strengths and weaknesses of mathematics provision. Teaching and learning are

monitored carefully and inexperienced teachers are supported strongly. Teachers' willingness to engage in debate and to support each other is a strength.

- Effective monitoring of students' progress and subsequent intervention is supported by regular line-management meetings where the head of department is held accountable for students' progress. Students' test results and examination scripts are analysed to identify areas where additional support is needed, and sometimes to identify topics that could be better taught.
- The department has a satisfactory self-evaluation and action plan, underpinned by a good analysis of students' and teachers' performance. However, reviews of previous plans focus too much on their implementation, and not enough on their effectiveness. The analysis of results is not linked strongly enough to the detailed evidence gleaned from work scrutiny and lesson observation to identify specific changes in mathematics provision that could lead to further improvement.

Subject issue: students' enjoyment and understanding of mathematics

- Students enjoy mathematics lessons because they are usually interesting, include a variety of activities and have clear learning objectives. Relationships in the classroom are good and most students display interest and a keenness to learn. Students contribute to their own learning and understanding by asking questions and by assessing their own understanding.

Inclusion

- Mathematics makes a satisfactory contribution to inclusion. The performance of minority groups is monitored at a whole school level but, as mentioned above, equality of access to some aspects of the curriculum is not guaranteed.

Areas for improvement, which we discussed, included:

- enhancing the schemes of work to provide an extension strand for the most able and guidance on effective 'lead lessons' for each unit of work
- improving the progress made in Key Stage 3 by the most able students
- using detailed evidence of work scrutiny and lesson observation to identify specific changes in mathematics provision to drive further improvement.

I hope these observations are useful as you continue to develop mathematics in the school.

As I explained previously, a copy of this letter will be sent to your local authority and will be published on Ofsted's website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Stephen Abbott
Her Majesty's Inspector