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Mr V Scutt
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Dear Mr Scutt

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 29 and 30 September 2010 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 your consent.

The evidence used to inform the judgements included: interviews with staff and students; scrutiny of relevant documentation; analysis of students' work; observation of 10 lessons; and two 'learning walks' conducted jointly with a mathematics post holder and a senior leader.

The overall effectiveness of mathematics is satisfactory.

Achievement in mathematics

Achievement in mathematics is satisfactory.

- Attainment at GCSE rose sharply in 2010 with nearly 80% of the students reaching A* to C grades, which is significantly higher than average, but below the school's challenging target. Of these students, however, relatively few reached the highest A/A* grades. Given the cohort's above average starting points, these provisional results represent satisfactory progress. This is a marked improvement over the inadequate progress made overall by the 2009 and 2008 GCSE cohorts.
- At Key Stage 3, while teachers' assessments show that more students than average reach Level 5, the standard expected of 14-year-olds, attainment overall is average. As at GCSE, there is more to do to ensure all students,

but particularly the most able, are enabled to reach their full potential in lessons and over time.

- The quality of learning varies widely but is satisfactory overall. It is best where teachers focus on developing students' understanding of the underpinning concepts. When greater attention is given to acquiring techniques, although students are equipped to answer routine examination questions, they lack the depth of experience necessary to solve complex problems and progress confidently to advanced study post–16.
- In lessons, although students generally behave well, they are often passive. They enjoy learning best when involved actively in discussion and tackling interesting tasks.

Quality of teaching of mathematics

The quality of teaching of mathematics is satisfactory.

- A core of good practice includes staff who have leadership responsibilities for the subject at senior and middle levels. Teachers show a readiness to engage in discussion about their practice and how it might be strengthened further.
- The best teaching sequences learning effectively, making links with earlier learning and other aspects of mathematics, and using activities that encourage discussion. Teachers check all students' understanding through skilful questioning and strategies such as use of mini-whiteboards.
- Weaknesses in the teaching include explanations that do not model mathematical thinking clearly or focus on how to use a technique rather than building understanding of why it works. Sometimes, teachers dominate the talk with only a few students contributing answers. The pace of learning is occasionally slow or uneven for students of differing abilities.
- Some very good use of assessment to support learning, observed in a few lessons, is not consistent across the department. Teachers' marking also varies in quality from helpful to cursory. Students' progress is monitored primarily through termly tests. Older students also practise past GCSE papers. The department has just started using a website for homework but a clearer view is required on how it might be used most effectively.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is satisfactory.

- The department offers a suitable range of courses at Key Stage 4, including the challenging GCSE in additional mathematics and entry level qualifications for students who have significant special educational needs. Careful timetabling ensures that those who attend college for vocational courses also study GCSE mathematics at an appropriate level.
- At Key Stage 3, vulnerable students are supported through transition groups. Some sets have two mathematics teachers. The scheme of work has been updated and includes links to resources and activities, including some investigations. However, it provides no guidance for teachers on

expected breadth and depth of coverage for different sets or on approaches that promote conceptual understanding.

- The Key Stage 4 schemes are based on the awarding body's specifications but have no supplementary guidance for teachers. Scrutiny of students' work shows that limited attention is given to the more demanding material, particularly algebra and proof. This is of particular concern for the most able students who need to be fluent and confident with A/A* material.
- Although opportunities for problem-solving and investigation are identified, students' skills in using and applying mathematics are not explicitly developed through the schemes of work. While advice from colleagues is readily available, the lack of guidance and limited monitoring of provision mean that students' experiences of the mathematics curriculum vary and their progress is sometimes limited or uneven.

Effectiveness of leadership and management of mathematics

The leadership and management of mathematics are satisfactory.

- Leadership of the department is in a period of transition: the line manager is new to the school this term and two teachers have recently become post-holders within the department. All three are role-models of effective classroom practice. The subject leader is changing responsibility to managing the school's mathematics and computing specialism.
- The department's self-evaluation has tended to be over-generous in the past. This has stemmed from weaknesses in monitoring its work. A recent increased emphasis in development plans on students' progress and on monitoring teaching and learning is not established yet.
- Senior leaders' assessment of the department's effectiveness is largely accurate. There was close agreement in discussions when evaluating inspection activities conducted jointly with a post-holder and the line manager.
- The department consists of a committed team of specialist teachers whose efforts last year to improve outcomes at GCSE were successful, with a 16% rise in the A* to C pass rates. This teamwork and teachers' readiness to reflect and improve, coupled with the good practice evident within the department, and underpinned by a sharp assessment of strengths and weaknesses in provision, provide satisfactory capacity for improvement.

Areas for improvement, which we discussed, include:

- improving the learning and progress of all students, especially the most able
- taking a systematic approach to raising the quality of teaching, by ensuring that:
    - all students are involved actively in a good variety of activities
    - teachers sequence learning coherently and in appropriate depth, checking students' progress throughout the lesson

  - monitoring identifies and tackles weaknesses
  - best practice is shared

- providing guidance for teachers to supplement the schemes of work
- establishing thorough systems for monitoring, evaluation and review to drive sustainable improvement.

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

Jane Jones
Her Majesty's Inspector