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Mr J Martin
Principal
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Dear Mr Martin

Ofsted 2014–15 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 28 and 29 January 2015 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: meetings with staff and students; scrutiny of relevant documentation; analysis of students' work; and visits to lessons.

The overall effectiveness of mathematics is good.

Leadership and management of mathematics are good.

- Leaders' drive, ambition and knowledge of mathematics have been major contributors to the recently improved mathematics provision.
- The mathematics leaders have a clear vision for improvement which is well informed by best practice in the teaching of mathematics. Teachers are guided well as a group and share leaders' desire to realise these aims.
- Teachers are keen to improve their practice. Leaders ensure a skilful balance of challenge and support, for example, by deploying teachers across all key stages so that they can develop common teaching approaches that are effective for all age groups.
- Monitoring and evaluation of teaching is frequent, thorough and rigorous. Guided by whole-school frameworks, leaders give teachers good general guidance about how they can improve aspects of their teaching.

- Leaders' subject-specific priorities for the development of mathematics teaching are clear and accurate but they do not feature enough in the formal monitoring and evaluation of teaching to ensure that priorities for improvement for each teacher are informed directly by best practice.

The curriculum in mathematics is good.

- Qualifications are carefully chosen so that students develop mathematics skills that they will need in the next stage of their education. Programmes which share the same aims have recently begun to support leaders' vision of a seamless journey of mathematics for all age groups.
- New schemes of work in Years 7 and 8 are providing more opportunities to develop students' conceptual understanding and problem-solving skills. The recently introduced three-year GCSE course for students seeks to secure the same deep mathematical understanding.
- Schemes of work provide good guidance about topic order, timings and resources. Further guidance about opportunities to deepen students' understanding and develop their problem-solving skills should help to increase the pace of improvements so that more teaching is outstanding.
- Leaders make good use of targeted early entry to GCSE, informed by students' expected attainment and depth of understanding. Additional Key Stage 4 qualifications support high aspiration and students' readiness for A-level mathematics. Bespoke pathways are designed for a small number of students so that they continue to be challenged deeply enough.
- Students benefit from a mathematics curriculum that provides support well beyond the normal school day. Teachers' use of diagnostic tools to identify and support learning in topics for individual students is making a significant contribution to their good and better outcomes.

Teaching in mathematics is good.

- The majority of teaching is consistently good, and some is outstanding. Teachers ensure learning is based on good conceptual understanding by drawing confidently on their strong subject knowledge to forge links between students' prior knowledge of number, shape and algebra.
- Teachers' planning increasingly reflects the core aims of the national curriculum. In the best cases, careful planning deepens learning through well-chosen tasks that deliberately link key concepts within a topic.
- Teachers recognise that students of different abilities are best challenged by providing activities that support varied depth of understanding. Some teachers are still adjusting to this development and, as a result, some of the most-able students are not challenged quickly enough.
- Students reason well during class discussions because teachers' questioning is of high quality. Similarly, because teachers set a good example of how to present written mathematics, most students' written work is mainly accurate and precise. Problems involving more subtle written reasoning, for example proof, are less common in students' work and are typically less well undertaken.

Achievement in mathematics is good.

- Overall, GCSE outcomes are consistently higher than the national average. Students with the lowest starting points make outstanding progress. A small proportion of students who joined the school with Level 5 in mathematics did not attain high GCSE grades in 2014. School data indicate that this proportion is expected to reduce in 2015.
- In recent years, leaders have eradicated the gap between the progress of disadvantaged students and that of other students.
- The achievement of students in the sixth form is outstanding. From starting points that are lower than national averages, students' attainment at AS- and A-Level is consistently strong. Value-added measures over the last three years have exceeded expectations consistently.
- Students of all abilities show good levels of mathematical fluency, supported by teachers' consistent emphasis on reasoning during discussion in lessons. Teachers have begun to introduce greater variety into students' work to develop problem solving skills further.
- Students have good and sometimes outstanding attitudes to mathematics. Teachers are successfully introducing new approaches to engage, enthuse and involve students more in their learning of mathematics.

Areas for improvement, which we discussed, include:

- ensuring that lesson observations, work scrutiny and other monitoring tools give teachers more detailed guidance about how they can develop students' reasoning, problem solving and conceptual understanding
- enhancing schemes of work in Years 7, 8 and 9 to give teachers more guidance about opportunities to develop students' problem-solving skills, reasoning and conceptual understanding
- ensuring that teaching consistently provides opportunities that:
 - develop students' written reasoning skills
 - give timely challenge for the most-able students to deepen their understanding of concepts.

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

As explained previously, 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

Michael Pennington
Her Majesty's Inspector