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Ms M Warnes
Headteacher
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Dear Ms Warnes

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 12 and 13 July 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 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 and brief visits to several others.

The overall effectiveness of mathematics is outstanding.

Achievement in mathematics

Achievement in mathematics is outstanding.

- Students start at the school with slightly above average attainment. They make very good progress in Key Stages 3 and 4 to attain standards which are well above average. The school's commitment to inclusion is exemplified by all students gaining at least a grade F in GCSE mathematics in 2009 and almost a third gaining an A or A* grade.
- The school's good quality assessment information shows that standards are expected to rise further this year. Higher attaining Year 11 students completed their GCSE course at the end of Year 10 and this year are taking a free standing mathematics qualification (FSMQ), which is equivalent to an AS. Other Year 11 students who wish to take A-level mathematics are receiving additional support so that they are better prepared in key areas, particularly algebra.

- In 2009, standards at A level were above average and students made good progress. The whole school's focus on improving A-level results has led to the mathematics department offering additional support for students, including intervening when they have been falling below their target levels and providing very much appreciated help for individuals.
- In lessons, progress is consistently at least good and often outstanding. Students say that the strong emphasis on developing understanding helps them to enjoy the subject with one saying 'Teachers get you to understand a concept so that you remember it.' Sixth-form students also comment that the way staff go over the proofs of key mathematical ideas helps them to understand and also see how new topics build on previous work. Students from other years felt that mathematics lessons build coherently on previous learning and that this helps them make such good progress and enjoy the subject.
- The school uses its second specialism of special educational needs well to ensure students in need of additional support receive it and make similarly strong progress to their peers.
- Behaviour is generally very good. Students are fully engaged in lessons in the wide variety of interesting activities. At the time of the visit, many students were eagerly looking forward to the alternative curriculum activities which were available for the rest of the week, including a visit with a mathematical emphasis to Symonds Yat.

Quality of teaching of mathematics

The quality of teaching of mathematics is outstanding.

- The quality of teaching is at least good and often outstanding. Lessons are planned very well with a very strong emphasis on students making connections for themselves by building on prior learning and identifying next steps, often by investigating relationships or working in groups and assessing each other's work.
- Teachers ensure all students have a good understanding of the topics covered. They are highly effective at using questions to identify errors or misconceptions. Much of the marking is of very good quality and informs students how to improve.
- Teachers have very good subject knowledge which they use skilfully to introduce a wide and interesting range of teaching activities. Good use is made of interactive whiteboards, although opportunities to use graphical and dynamic geometry applications are sometimes missed.
- The departmental team regularly discusses how best to teach topics, including how individual lessons fit into the overall scheme of work. This often generates lesson ideas which are then used by others within the department.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is good.

- Schemes of work identify a wide variety of interesting activities to ensure students' very good learning and engagement. The schemes ensure clear and coherent progression with new work building systematically on prior learning. While many lessons include elements of using and applying mathematics and a good selection of activities is available to staff, they are not signposted within schemes of work.
- Students use elements of information and communication technology (ICT) to support their learning in mathematics, often accessing resources at home. However, these opportunities are not specifically linked to modules of work or lesson plans.
- The school aims to maximise students' achievement by completing Key Stage 3 in two years and then starting GCSE. The majority of students enter the higher tier, which reflects the school's high expectations. Next year, the number of sets completing the FSMQ in Year 11 will be increased.
- Your commitment to inclusion and also the school's specialist area of special educational needs have ensured that all work is relevant to students at whatever level they are working and enables individuals to make excellent progress. There are also good cross-curricular links as part of the school's main specialism in the visual arts.
- Students appreciate greatly the excellent support and guidance they receive. Sixth-form students are also grateful for the opportunity to work alongside members of the department when they need additional help in lessons.

Effectiveness of leadership and management of mathematics

The effectiveness of the leadership and management of mathematics is outstanding.

- The subject leaders have complementary strengths and have been effective in supporting and improving the quality of teaching and learning in mathematics. They have also provided very well-received support for teaching and learning in a partner school, as well as sharing expertise in leadership and management. There is a clear, shared vision of how the department is developing and what areas need to be improved further.
- Targets are used effectively to challenge students. Rigorous monitoring of individuals' progress enables quick intervention if any student appears to be at risk of underachieving.
- The strong support and direction from you and the senior leadership team, the lack of any complacency, the impressive impact of the subject leaders and the improvements already achieved demonstrate an excellent capacity to improve.

Areas for improvement, which we discussed, include:

- embedding using and applying mathematics and the use of ICT into schemes of work across all years, building on the good practice within the department.

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 sent to your local authority and will be published on the Ofsted website under the URN for your school. It will also be available to the team for your next institutional inspection.

Yours sincerely

Michael Smith
Her Majesty's Inspector