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Mrs A Hems
Headteacher
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Dear Mrs Hems

Ofsted 2011–12 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of the staff and students, during my visit on 15 and 16 November 2011 to look at work in science.

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 seven lessons.

The overall effectiveness of science is good.

Achievement in science

Achievement in science is good.

- Attainment for students sitting three separate sciences at GCSE and for those sitting additional science is high in comparison with national standards. In 2011, the proportion of A and A* grades increased and nearly all students reached their targets. However, a small number of students made less than expected progress and did not gain two A* to C grades.
- Students have high attainment on entry to the school and make good progress from their starting points, including the small number with special educational needs and/or disabilities.
- Sixth-form students make good progress from GCSE towards AS level, particularly in biology, and satisfactory progress at A2. Attainment is

nevertheless high, with two-thirds of biology students and at least three quarters of chemistry and physics students gaining A and B grades.

- Good mathematical and English skills support students' learning in science very effectively.
- Students enjoy and take an active interest in science. They behave extremely well and take responsibility for their learning. Practical work is carried out calmly and sensibly.

Quality of teaching in science

The quality of teaching in science is good.

- The quality of teaching varies, with some that is outstanding, leading to exceptional learning. In other lessons, students' progress is more limited because the teacher does not focus enough on ensuring that appropriate, interesting activities are clearly linked to a precise learning objective which will ensure progression.
- Teachers' very strong subject knowledge makes a good contribution to learning especially in the sixth form.
- Relationships between staff and students are friendly and constructive. Students are able, compliant and do exactly as they are asked. The standard of their work is high. They are anxious to succeed, but are not given enough opportunity to discuss ideas or work things out independently. In some lessons, questioning is closed and does not challenge students or lead to deep understanding of concepts.
- Information and communication technology is used very effectively for staff and students to share resources and as a learning tool to support homework and research.
- In the main school, marking is regular but does not consistently provide students with guidance about what they need to do to improve. Both marking and the use of peer assessment in the sixth form contribute well to learning.
- A team of well-trained science technicians support teaching and health and safety procedures in the department very effectively.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- Schemes of work are thorough and provide opportunities to develop skills for scientific investigation and the use of information and communication technology. Teachers share resources and have the autonomy to adapt materials to suit students' needs.
- The Key Stage 4 course now runs over three years. Standards at Key Stage 3 have remained secure and there is now more time for a wide range of interesting activities and for all students to study three sciences at Key Stage 4.

- Guidance for science-based careers is good. Over 40% of students leaving the sixth form go on to science-linked degree courses. More than half the students in the sixth form study at least one science course at A level.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is good.

- The head of science manages the department well and leads a cooperative team. The department runs smoothly on a day-to-day basis.
- Assessment is used effectively to monitor students' progress over time. Students who are underachieving are identified quickly and appropriate support is provided for them. Assessments are both regular and accurate.
- Systems for monitoring the quality of teaching are not sufficiently robust. Not enough information about teaching and learning is collected formally to make well-informed judgements about strengths and areas where coaching and support will bring about improvements.
- Although new whole-school expectations for marking are available, monitoring is not sufficiently thorough to ensure that these embedded into day-to-day practice.

Areas for improvement, which we discussed, include:

- ensuring that the department has a comprehensive and rigorous procedure to monitor, evaluate and improve the quality of teaching and learning
- encouraging students to work things out for themselves by:
 - routinely using open questioning to enhance learning and deepen understanding
 - providing more opportunities for them to work independently and to discuss ideas.

I hope that these observations are useful as you continue to develop science 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

Mary Massey
Her Majesty's Inspector