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Mr J Skinner
Headteacher
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Dear Mr Skinner

Ofsted 2011–12 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 12 and 13 January 2012 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 outstanding.

Achievement in science

Achievement in science is outstanding.

- Students start school with attainment that is well above the national average level for Key Stage 2. They make excellent progress and reach standards at the end of Key Stage 4 that are well above those reached nationally. In 2011, almost all students gained three science GCSE grades A* to C, with most students gaining these higher grades in each of the three separate sciences – physics, chemistry and biology. Within this, almost half of the students reached the highest A* and A grades in biology and physics, while over a third of the students gained an A* or A grade in chemistry.
- Outcomes in the sixth form are also outstanding. Most Year 12 students move on from successfully completing their AS courses in science to take the A-level modules in Year 13.

- Students show excellent attitudes to learning, particularly where the lessons are lively and engaging. Most students really enjoy their practical work and feel it helps them to improve their understanding of scientific concepts, especially where they are given opportunities to develop their skills through investigating and finding out.
- Students understand how well they are doing and the standards they are reaching. They are very positive about the assessment systems used and how these help them to improve their learning.

Quality of teaching in science

The quality of teaching in science is outstanding.

- Teachers are well-qualified science specialists with good subject knowledge. They are confident in their presentation of scientific concepts in a wide range of different contexts. This allows for lessons that address current and controversial aspects of science.
- Question and answer techniques are used very effectively by teachers to check on students' understanding of the concepts being taught. This approach also helps students to engage with their lessons, and they are all very appreciative of the teaching they receive.
- The most successful and demanding teaching expects students to think in a scientific way when they are analysing and working through difficult concepts. This makes a significant contribution to their social and cultural development, especially where they are encouraged to work in groups and teams.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- The curriculum is broad and balanced. It provides very good coverage of science issues that are relevant and current. There is a strong emphasis on ensuring students have appropriate courses to study at each stage of their education.
- Key Stage 3 has been shortened so that GCSE studies can begin in Year 9 and this ensures that all students gain a preliminary science GCSE early in Year 10.
- The post-16 science and electronics courses offered follow traditional lines that are popular, successful and provide students with a good foundation for further study.
- Although a range of extra-curricular activities is organised by the school, this does not have a very high profile with the students beyond those who are targeted with examination revision and support.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is outstanding.

- Science is very well managed in the context of a school where accountability is clear. Strong line management links to the senior leadership team support the department.
- Training for teachers is very well organised and there are good opportunities for courses that are closely linked to the needs of the teachers and their students.
- The work of the department is regularly and thoroughly evaluated through a detailed analysis of information on students' performance. This allows for outcomes to be tightly tracked so that focus on high standards can be maintained.

Areas for improvement, which we discussed, include:

- extending and developing the range of extra-curricular activities offered in science, especially through including more visits from external scientists.

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.

Yours sincerely

Christine Jones
Her Majesty's Inspector