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Miss T Yardley
Headteacher
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Dear Miss Yardley

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 22 and 23 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 eight lessons.

The overall effectiveness of science is satisfactory.

Achievement in science

Achievement in science is satisfactory.

- The proportion of Year 11 students attaining two or more A* to C grades in science was below the national average in 2010 and 2011. The proportion of Year 11 students attaining the higher A* and A grades in separate science subjects increased in 2011. Current Year 11 students are on track to attain results closer to the national average.
- Students' make satisfactory progress in developing their knowledge and understanding of science and their skills of scientific enquiry between Years 7 and 11.
- Those students on the special educational needs register identified as being at 'school action' make less progress than their peers.

- The achievement of students studying biology, chemistry and physics in the sixth form is satisfactory. Students' achievement on the vocational science course in the sixth form is good.
- Students show positive attitudes to learning in the vast majority of lessons. They are keen to do well and willingly undertake the tasks set for them by teachers. They undertake practical work safely and sensibly and cooperate very well when working in groups.

Quality of teaching in science

The quality of teaching in science is satisfactory.

- The majority of teaching is good, especially where teachers engage their students by helping them to learn independently. However, too many lessons are satisfactory, so not enough students are making good progress in their learning.
- Teachers have strong subject knowledge, provide clear explanations and make effective use of resources to aid learning.
- In the better lessons, during whole-class discussions, teachers carefully target their questions to involve different students, and ask students to explain their answers in some detail, thereby developing their understanding. However, in some lessons, such whole-class discussions go on for too long and the questions asked simply check students' knowledge rather than develop their understanding.
- Lessons are generally engaging and effectively involve students in learning, either independently or in groups. However, in some lessons, tasks set for the whole class are either too difficult or not challenging enough for individual students.
- Students have a good knowledge of their targets and take pride in working to achieve these, but do not always have a precise grasp of how to improve their work to reach them. Some marking provides good advice to students about how to improve. However, this good practice is not consistent across the department and teachers' written comments vary widely in the detail and advice they provide.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- The Key Stage 3 curriculum has been well developed by the department and has a clear focus on developing students' skills of scientific enquiry. However, opportunities for students to practice and develop their literacy skills are not yet fully embedded in schemes of work.
- The curriculum is well planned and ensures effective continuity and progression in students' learning. Academic and vocational science courses are available for students to follow in Key Stage 4. This range of courses meets students' needs, interests and learning styles well.

- The science courses offered in the sixth form build well on those studied in Key Stage 4.
- The curriculum is enriched well by good links with local business and industry, a science club, trips, visits and fieldwork. These add to students' enjoyment of science.
- Students' use of information and communication technology (ICT) to enhance their learning in science has not been fully developed.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is satisfactory.

- The head of science has been successful in creating a team of teachers who are supportive of each other and are committed to raising students' achievement. The department is well organised and runs well on a day to day basis.
- The targets set for students are challenging, reflecting the ambition of the department leaders. Students' progress towards these targets is regularly reviewed and underachieving students are identified and provided with increasingly effective support.
- Self-evaluation is accurate and honest and good plans are in place to improve students' achievement.
- The quality of teaching is regularly monitored by the head of science and senior leaders. However, opportunities for staff to share and develop good teaching practice have not been fully exploited.
- The monitoring of teachers' marking is not sufficiently rigorous to ensure consistency of good practice across the department.

Areas for improvement, which we discussed, include:

- improving teaching to accelerate students' progress in lessons and raise attainment by ensuring that:
 - all teachers provide challenging activities that are well matched to the ability and learning needs of all students
 - teachers' questioning is used effectively to check and develop students' understanding of new ideas and concepts
 - students are given consistently good written feedback so that they are clear about what they need to do to improve.

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

Peter Sanderson
Her Majesty's Inspector