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Ms Quayle
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Dear Ms Quayle

Ofsted 2009-10 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of your staff, during my visit on 4 and 5 November 2009 to look at work in science.

As outlined in the initial letter, as well as looking at key areas of the subject, the visit had a particular focus on evaluating the impact of recent initiatives and to investigate the need for future developments.

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. All feedback letters will be published on the Ofsted website at the end of each half term.

The evidence used to inform the judgements included interviews with staff and students, scrutiny of relevant documentation, analysis of students' work and observation of six lessons.

The overall effectiveness of science is good.

Achievement in science

Achievement in science is good.

- The GCSE results for five A* to C grades in science were above average in 2008 and have continued to improve in 2009. Information on students' performance indicates that this rising trend in results is continuing as the new GCSE courses become firmly embedded in the science curriculum.
- An analysis of students' performance in science, compared with their other subjects, shows that it is above the school's average.
- The school's own analysis of performance data for Key Stage 3 indicates that younger students are achieving well and reaching good standards.

- Sixth-form science classes are small; some students perform very well, although overall performance can be affected by weaker outcomes for a few students.
- The quality of students' learning and progress is good. They make good progress from their starting points on entry to the school.
- Students are keen to learn and most work hard and behave well in lessons, especially where the subject material is engaging and interesting. They enjoy practical work and behave in a sensible way, paying good attention to health and safety.

Quality of teaching of science

The quality of teaching of science is good.

- Teachers have good subject knowledge and use this well to make science lessons relevant and interesting to the students.
- There are good relationships between teachers and students and this creates a positive learning environment.
- Students particularly enjoy science practical work, particularly where they are given creative opportunities to be active participants.
- Where students are studying GCSE modules in Year 9, teaching does not always take into account the need to ensure the work is focused on meeting students' learning needs. Sometimes, they struggle to understand the more complex scientific concepts.
- Information and communication technology (ICT) does not make a significant impact on supporting teaching and learning in science. Students use laptops occasionally, but they could not give examples of using ICT in science beyond using the internet for research.
- There are examples of excellent practice in marking and assessment where feedback is thorough and students are involved in marking their own work and that of others. In some cases, marking gives limited diagnostic feedback and leaves students unclear about the standards they are reaching and what they could do to improve.

Quality of the curriculum in science

The quality of the curriculum is good.

- The Key Stage 3 science curriculum has been revised and practical tasks are included that provide a common approach to scientific enquiry. This gives students a framework when working on investigations that also shows the standards they are reaching.
- Key Stage 3 is taught in two years and students start their GCSE science course in Year 9. Some aspects of science are not tailored appropriately to the learning needs of younger and less able students.
- GCSE courses have been changed recently and new ones introduced successfully after problems were encountered with the first syllabus

chosen. At the same time, the curriculum has been widened to introduce an alternative BTEC science course that has extended the options available that are more relevant and interesting for particular students.

- The full range of science GCE courses are offered to sixth-form students along with GCE psychology and heath and social care. The recent introduction of a level 3 BTEC course in forensic science provides greater continuity to those students entering the sixth form from studying BTEC applied science in Key Stage 4.
- A good range of extra-curricular activities support the science curriculum. Science clubs and extra revision sessions are attended well. There are some unusual activities, such as working with the National Trust and physics ambassadors, that are providing an extra dimension to science outside of the taught curriculum.

Effectiveness of leadership and management in science

Leadership and management of science are good.

- The school is clearly determined to maintain the good standards in science and the senior leadership team provides a positive environment for this through effective support and challenge.
- Monitoring systems give a good view of the quality and standards of science education. Thorough monitoring of the performance of each student gives a clear view of individual achievement and is used effectively to identify those who are not achieving the best they can.
- Teachers receive training that is appropriate to their needs from a variety of internal and external providers.

Areas for improvement, which we discussed, include:

- improving the use of ICT to support teaching and learning in science
- ensuring that teaching of GCSE modules in Year 9 takes appropriate account of the learning needs of younger and less able students
- extending the use of the excellent existing practice in marking and assessment to all teachers.

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

As I explained in my previous letter, a copy of this letter will be sent to your local authority and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Christine Jones
Her Majesty's Inspector