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Mr C Davis
Headteacher
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Dear Mr Davis

Ofsted 2010–11 subject survey inspection programme: Science

Thank you for your hospitality and cooperation, and that of your staff, during my visit on 27 and 28 September 2010 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 five lessons.

The overall effectiveness of science is good.

Achievement in science

Achievement in science is good.

- The proportion of students gaining two or more GCSE A* to C grades in science increased in 2010 to over 50%. The proportions of students gaining the top A* and A grades in science subjects are well above average.
- Students' prior attainment on entry to the school is below average and students make good progress over time reaching average standards by the time they leave.
- The school analyses indicate most groups of students do better than their individual targets.

- Data comparing students' performance in GCSE science subjects with their performance in other subjects show that students do significantly better in science.
- In the majority of the lessons observed, students made good progress.
- Students' behaviour in most lessons is good. They display good attitudes to learning, applying themselves diligently to the tasks set. They collaborate well in group activities.
- Students' books and files show a variety of science work which is presented well. Students are encouraged to take pride in their work.

Quality of teaching of science

The quality of teaching of science is good.

- The quality of teaching in the lessons observed ranged from outstanding to satisfactory. Teachers have good subject knowledge and they plan lessons carefully. Authority is usually exercised purposefully and most teachers take care to establish disciplined classroom routines which help to promote good behaviour.
- Strengths observed in better lessons included very good student engagement and involvement as a result of varied and carefully planned activities which enabled learning to move at a brisk pace. Learning was reinforced effectively and teachers picked up students' misunderstandings astutely.
- Practical work and investigations are regular features of science lessons which are enjoyed by students. Learning materials are presented well and the use of information and communication technology to support teaching and learning in science is good.
- In the minority of satisfactory lessons, weaknesses included less effective management of students' behaviour resulting in some inattention at times; lengthy periods listening to the teacher without sufficient student involvement; and overuse of text-based material not appropriate to the students' abilities.
- Students' progress is assessed regularly. Thorough and comprehensive records are kept for both Key Stages 3 and 4.
- Students' work is marked at least as often as the school policy directs, and often more frequently. Marking includes useful targets and students report that these are helpful to them in improving their work.

Quality of the curriculum

The quality of the science curriculum is good.

- An appropriate range of courses is offered at Key Stage 4, including GCSEs in science and additional science, physics, chemistry and biology. The

curriculum is reviewed regularly and this has recently led to the introduction of a vocational science course at Key Stage 4.

- There are very good enrichment activities which are relevant to science, and many of these provide appropriate links with technology in keeping with the school's specialist status.
- At Key Stage 3, a new scheme of work has been purchased to better engage interest. This provides a more skills based approach. The school has adapted this to ensure that it meets students' needs.

Leadership and management of science

The effectiveness of the leadership and management of science is good.

- The senior leadership team has created a positive environment for development and improvement in science.
- Staffing issues during 2009 to 2010 have been dealt with well to minimise the impact on student achievement.
- The subject leader is highly capable and is supported very well by the teacher who is second in charge of the department. Together, they complement each other's skills.
- Very thorough analyses of performance data are carried out, including scrutiny of the performance of different groups, such as students with special educational needs, those with English as an additional language and those known to be eligible for free school meals.
- Students' progress is tracked and monitored very thoroughly and enable underachievement to be identified quickly with strategies put in place to address this. Departmental records clearly show that this is a key factor in raising achievement, especially at Key Stage 4.
- The science newsletter is a valuable initiative to support improvement in teaching and learning. It is well presented and includes useful summaries, important features of good teaching, and helpful tips.

Areas for improvement, which we discussed, include:

- further improving the quality of teaching so that more lessons are good by:
 - increasing the active involvement of students and reducing the time spent listening to the teacher
 - ensuring that behaviour management strategies are implemented effectively in all lessons
 - ensuring that all materials are appropriately matched to students' abilities
 - ensuring that key points are reinforced effectively
 - sharing the good and outstanding practice that exists within the department

- offering the opportunity to study three science GCSEs to more students without reducing their option choices
- ensuring that the arrangements for the vocational Key Stage 4 course provide sufficient opportunities for students who miss lessons, for example because of attendance at college, to catch up with their coursework.

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. Except in the case of academies, a copy of this letter is also being sent to your local authority.

Yours sincerely

Ruth James
Her Majesty's Inspector