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Mr A Pickering
Headteacher
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Dear Mr Pickering

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 11 and 12 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 nine lessons.

The overall effectiveness of science is satisfactory.

Achievement in science

Achievement in science is satisfactory.

- Over the past three years, there has been a decline in the percentage of Year 11 students attaining two or more A* to C grades in science. In 2011, the attainment of students following separate science courses was above the national average. However, the attainment of those taking core and additional science was below average.
- Attainment is now beginning to rise again. Current Year 11 students attained much better results in their core science examinations, taken at the end of Year 10, compared with the previous year.
- Students made satisfactory progress in developing their skills of scientific enquiry and in developing their knowledge and understanding of science in the lessons observed.

- Students' achievement on both AS and A2 courses in the sixth form is satisfactory and improving.
- Students enjoy science and this is reflected in the high numbers choosing to study a science subject in the sixth form.
- Students' attitudes to learning are very good and they respond positively to the opportunities they are given to work either independently or in groups. They carry out practical work safely, behave sensibly and take care when taking measurements and recording observations.

Quality of teaching in science

The quality of teaching in science is satisfactory.

- All the teaching observed was at least satisfactory and the majority was good. However, the quality of teaching across the department is not consistently good enough to ensure that students make good progress.
- Teachers have good subject knowledge and use this well to plan lessons around clear learning outcomes. In most lessons, planned activities actively involve students in learning. However, occasionally teachers can talk for too long and this slows the pace of the lesson.
- Relationships between staff and students are good. Older students are very appreciative of the extra support that teachers give them when preparing for examinations.
- Most teachers make effective use of targeted questioning to check and develop students' knowledge and understanding of new scientific ideas.
- Teachers have clear information about students' prior attainment and their specific learning needs. However, this information is not being used effectively by all teachers to plan lessons that contain challenging activities that are well matched to the abilities and learning needs of all students.
- Students are aware of their targets and how well they are doing. Some teachers mark work well and give students good advice about how to improve. However, this good practice is not consistent across the department.

Quality of the curriculum in science

The quality of the curriculum in science is satisfactory.

- The curriculum has recently been developed well in Years 7 and 8. The course has a good focus on developing students' skills of scientific enquiry, and new scientific concepts are delivered through interesting contexts.
- A satisfactory range of Key Stage 4 courses meets students' needs and abilities. However, no vocational science course is available to students at present.
- Opportunities for students to use information and communication technology to improve their learning in science have not been fully developed.

- A satisfactory range of trips, clubs and activities is in place to develop students' enjoyment and interest in science.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is satisfactory.

- Senior leaders and governors have high expectations, and a good level of support and challenge is being provided to the department to improve provision and students' outcomes.
- The targets set for students are challenging and a good system is in place to track progress towards these targets. The interventions provided to those students who are identified as underachieving are becoming increasingly effective.
- The monitoring of teaching is robust and accurate but insufficient opportunities are provided for teachers to share and develop good practice.
- The monitoring of teachers' marking is not sufficiently rigorous to ensure consistency of good practice across the department.
- Science leaders are well aware of the department's strengths and weaknesses, and the departmental development plan identifies appropriate actions to drive further improvement. However, the success criteria in the plan are not sufficiently measurable and systems for monitoring and evaluation are not clear.

Areas for improvement, which we discussed, include:

- improving teaching to further raise attainment by ensuring that:
 - all teachers make effective use of data to plan and deliver lessons that are sufficiently challenging for all students and meet their learning needs
 - all teachers mark work regularly and give clear advice to students about how to improve
 - more opportunities are provided for staff to share and develop good teaching practice.

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

Peter Sanderson
Her Majesty's Inspector