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Mr D Matthews
Headteacher
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Dear Mr Matthews

Ofsted 2012–13 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 28 and 29 May 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 four lessons plus shorter visits to two Year 11 revision sessions.

The overall effectiveness of science is good

Achievement in science

Achievement in science is good

- Students start school with average attainment. They make good progress and reach standards in science at the end of Key Stage 4 that are above those reached nationally. The percentage of students gaining at least two A* to C grade GCSEs has increased over the last three years and is set to improve again in 2012.
- Over the past three years, on average 21% of the cohort has taken separate science GCSEs. In 2011 more students gained A* to C grades in biology than in chemistry. Outcomes in physics were lower than these two sciences. All students taking BTEC science have passed the course with several achieving a merit level pass.

- While achievement in all science courses is good, analysis of information of students' performance across the school indicates that they do less well in science overall compared to their other subjects. The exception is biology where performance is above average, whereas physics was the weakest science course and below other school subjects.
- Students show good attitudes to learning, particularly where the lessons are lively and engaging. Students say they really enjoy 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.

Quality of teaching in science

The quality of teaching in science is good

- The most successful teaching is characterised by a varied range of activities that ensures that students are motivated and engaged with their learning. A fast pace of learning gives little opportunities for students to lose interest. Lessons are sharply focused on learning new science ideas and skills, and are driven by clear, explicit and shared objectives.
- Relationships between teachers and their students are good. Students are happier in lessons where teachers approach their teaching with humour and enthusiasm and encourage the students to contribute their own ideas and opinions.
- Occasionally lessons are over-directed by the teacher, for example where they talk too much and allow activities to go on for too long. The pace of these lessons slows, students lose interest and too many opportunities arise for off-task behaviour to occur.
- Some teachers are developing successful and innovative approaches to more routine tasks such as revision, and looking for ways to make this more effective and contribute to raising achievement.
- The work in students' exercise books is usually marked frequently and regularly although there were instances where some books had not been marked for some time. The quality of feedback given to the students regarding the standards they are reaching and how to improve was variable. Some books contained an abundance of worksheets, many of which were not properly fixed in place or organised correctly.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- The science curriculum is currently being re-designed in detail to complement the department's emphasis on developing the teaching of separate sciences. Planning is well advanced to shorten Key Stage 3 to two years so that students can start their GCSE studies in Year 9.
- The current science curriculum is broad and balanced. It provides good coverage of science issues that are relevant and current. A strong

emphasis is placed on ensuring that students have appropriate courses to study, especially at Key Stage 4.

- A range of extra-curricular activities are organised by the school, mainly targeted at specific students. Some involve visiting speakers and some are joint extra-curricular activities with other subjects such as design technology.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is good.

- Science is well managed by the new subject leader. Strong line management links to the senior leadership team support the department. The school has a clear understanding of the strengths and weaknesses of provision.
- Good monitoring and tracking of student outcomes is giving a good overview of performance and is used well to identify and address underachievement.
- The subject leader monitors and evaluates the work of the department but other staff have limited involvement – for example in cross moderation of the quality of marking in students' books.
- Training for teachers is well organised and good opportunities are provided to attend courses that are closely linked to the needs of the teachers and their students. The subject leader had attended training in support of his leadership and management role.

Areas for improvement, which we discussed, include:

- reinforcing learning through rigorous marking and assessment of students' work so that they clearly understand the standards they are reaching and what they need to do to improve
- involving teachers in the monitoring and moderation of marking and assessment strategies to ensure consistency of feedback and advice to the students on their work.

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. A copy of this letter is also being sent to your local authority.

Yours sincerely

Christine Jones
Her Majesty's Inspector