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Mrs V Musgrave Headteacher Wymondham High School Folly Road Wymondham Norfolk NR18 0QT

Dear Mrs Musgrave

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 10 lessons.

The overall effectiveness of science is good.

Achievement in science

Achievement in science is good.

- Academic standards in science are above average overall, with boys and girls making equally good progress. This good achievement and above-average attainment continues in the sixth form, where a high proportion (60%) of sixth form students study science.
- This good achievement is driven by a department-wide consistent approach to lessons that emphasises practical learning through investigation. Plans include clear learning objectives and build in time for teachers to assess learning.
- As a result, students know what is expected of them, develop good working habits, and enjoy the progress they make. Their consistently very good behaviour contributes significantly to their good progress.

Occasionally, teachers over-elaborate the activities, so that not all students have enough time to reflect on their learning, or to explain their ideas fully.

Quality of teaching in science

The quality of teaching in science is good.

- All lessons proceed at a good pace, usually ensuring that most students engage with the main task. This almost always involves some form of practical investigation. Very good technical support allows students this regular experience of scientific phenomena, across all ages and abilities.
- Teachers' subject knowledge is high, and they use their love of science to enthuse and motivate students, often allowing discussions to go beyond the minimum requirements of the lesson plan. This approach is central to the overall success of teaching, including the high take up of science post-16. It models the enquiring attitude that drives scientific discovery, and helps inspire a sustained sense of inquisitiveness among students.
- Teachers systematically assess progress through planned activities in lessons, and are also skilled at more informal assessment of individual student progress as they circulate during the main activities. The quality of these individual teacher-student discussions are high and play a key role in creating good-humoured teacher-student relationships that engender students' confidence in their learning.
- Day-to-day lesson planning is not yet building on the good assessment information gained from previous lessons, so students are not always efficiently building on prior knowledge. Although diagnostic marking and written feedback are usually helpful, students do not systematically respond to it.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- The curriculum is thoughtfully planned to meet the aspirations and potential of all students, irrespective of their abilities. It is predominantly academic, with students directed on to appropriate routes. Almost all take additional science, or three separate sciences. A small group of students follow BTEC applied science, primarily because its coursework-based assessment gives them a better chance of success.
- From Year 7 (and earlier, through the school's specialist science outreach work in primary schools) there is a consistently high profile for practical science. Students enjoy this, but also appreciate the rigorously academic approach that underpins the curriculum, as they enjoy understanding the principles as much as seeing the consequences of these principles in action.
- A continuous sense of curriculum development drives improvements and leads to innovative projects, for example a post-16 communications unit

- developed in conjunction with the University of East Anglia. This culture of research also helps in training activities for new science teachers.
- A good programme of trips and visits enhances learning, coupled with an extensive and well-planned series of support classes to help students needing extra time to improve their performance.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is good.

- The consistently good, common approach to planning shared between all science staff is helping students to develop consistent work practices and habits, and underpins the good progress they make.
- The department's leaders are thoughtful, creating a professional culture focused on improvement. Staff are encouraged to extend their creative approaches to delivering lessons. The department is seeking to develop a more academically challenging approach to science at Key Stage 4, although it need not wait for a change in examination specification to do this.
- Good support from senior school leaders, coupled with continued development of physical resources and good technical support, allows a high level of practical work and signals the importance of good science to the wider school and its community.

Areas for improvement, which we discussed, include:

further refining lesson planning to take better account of assessment information gained in previous lessons, so that individual students can build on their prior learning more efficiently.

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

Brian Cartwright Her Majesty's Inspector