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Mrs P Nunn
Headteacher
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Dear Mrs Nunn

Ofsted survey inspection programme – Science

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 10-11 February 2009 to look at work in science.

As outlined in my initial letter, as well as looking at key areas of the subject, the visit had a particular focus on tracking the impact of recent initiatives and investigating 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 made included interviews with staff and students, scrutiny of relevant documentation, analysis of students' work and observation of seven lessons.

The overall effectiveness of science was judged to be outstanding.

Achievement and standards

Students' achievements are very good and standards in science are well above recent national averages.

- Attainment in science at Key Stage 3 has been well above national average for a number of years. In 2008 around four out of five girls achieved at least Level 6 and half of the cohort at least Level 7. Progress from Key Stage 2 to Key Stage 3 is very good.
- Science attainment at Key Stage 4 has been consistently well above recent national averages. All the girls who took separate sciences at GCSE in 2008 achieved an A* to C grade and approximately half were awarded A* or A grades. Attainment in core and additional science was also high and over three quarters of the girls achieved A* to C grades.

- Progress in science from Key Stage 2 to Key Stage 4 is well above national average. No group by ability or ethnicity makes significantly less progress than any other. However, closer scrutiny of progress reveals that some girls on School Action plus and some from Asian backgrounds make slightly less progress in Key Stage 4. The school has noted this in its self-evaluation documents and has put strategies in place to address this.
- Students' behaviour is excellent. The girls show high levels of engagement with science and clearly enjoy their studies. There is a well developed ethos of tolerance and mutual respect.
- Oral responses are good and in most lessons the activities are structured specifically to allow the students to develop their thinking and express their ideas.
- Students' written work in exercise books and files is of a very high standard for all levels of ability and across both key stages.

Quality of teaching and learning in science

Teaching and learning in science are outstanding.

- Teachers are very enthusiastic, well qualified and adept at motivating their students.
- Lessons are very well planned and the school policy of seating students where the teacher directs is successful in creating a purposeful atmosphere.
- There is a good range of activities including small group work, discussion and practical investigations. In the best lessons, group and practical work were very well integrated so that the pace of learning was maintained throughout.
- Starter activities are used well to focus students' attention and to remind them of key ideas and vocabulary. In addition teachers use information and communication technology (ICT) well to enliven their lessons.
- Assessment is good. Departmental records of students' attainments, National Curriculum levels and specific individual needs are up to date and centrally held. Unit tests and other assignment scores are regularly recorded and fairly assessed.
- However, diagnostic marking is still being developed.
- The girls speak confidently about the support they receive from science teachers and the fairness of assessments. They enjoy using the on-line homework to help them make progress.

Quality of the science curriculum

The science curriculum is outstanding.

- Schemes of work and accompanying lesson plans and printed resources are of a very good standard.
- The Year 7 science curriculum has been completely rewritten to meet the new National Curriculum programme of study. The new scheme is well designed both to engage the students and to incorporate "how science works" into the curriculum.

- The Key Stage 4 science curriculum is particularly flexible and meets the needs of all the students.
- Currently there is an entry level group in order to meet the needs of a number of girls in Year 11. Twenty First Century Science, along with core and additional science meet the needs of most students. Separate sciences have been in place for several years and more students are taking the separate sciences each year.
- There are well-developed plans for a vocational science course for Key Stage 4 to be implemented next year.
- Enrichment is a key strength of the science department and is linked to the school science specialism.
- A wide variety of extra-curricular activities takes place including an active science club, visiting speakers and demonstrations, the Carbon Challenge, competitions and Scientific Edge activities.

Leadership and management of science

Leadership and management of science are outstanding.

- The day to day organisation of science is very good. Technical support for the department is very strong.
- The science team work very well together and produce schemes of work and enrichment and science specialism activities of high quality.
- Continuing professional development (CPD) for the science team is well organised. In addition the science teachers are actively involved in CPD across the borough through the science specialism.
- Overall, science resources are good. However, some lessons are taught in classrooms each week due to the shortage of laboratory space. Currently the department is under-resourced by two laboratories.
- The self-evaluation and development plans are of good quality. Careful analysis of attainment is backed up by prompt action to address any under-performance by students.
- Transition from Year 6 to Year 7 is well managed and a very high proportion of girls progress to further study in science post-16.
- The sciences are fully supported by senior management and the school specialism is developing well.

Areas for improvement, which we discussed, included:

- developing diagnostic assessment across the department
- ensuring that all science lessons are taught in appropriate accommodation.

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.

Ofsted gathers information on the immediate and longer-term impact of survey inspections, both on the institutions themselves, and with a view to

improving its own processes. To this end, I should be grateful if you would complete the attached questionnaire and return it within the next ten days. We have also just sent a copy of the questionnaire by email. Please return your completed questionnaire to either the email or postal address on the form, not to me. We may also contact some schools by telephone after several months in order for us to gain a picture of longer-term impact. Thank you in advance for your assistance.

Yours sincerely

Alex Falconer
Her Majesty's Inspector