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Mr D Kennedy Headteacher The John Warner School Stanstead Road Hoddesdon Hertfordshire EN11 0QF

Dear Mr Kennedy

Ofsted survey inspection programme – Science

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

As outlined in my initial letter, as well as looking at key areas of science, the visit had a particular focus on transition within and between phases, the range of learning experiences provided; the status and use of scientific enquiry and how science works.

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 you and the science subject leader, scrutiny of relevant documentation, analysis of students' work and observation of ten lessons.

The overall effectiveness of science was judged to be satisfactory.

Achievement and standards

Standards overall are around the national average. Achievement is satisfactory.

- National data show the proportion of students attaining five A\* to C grades at GCSE, including mathematics and English, is significantly above the national average.
- This is not the case in science, where national measures show the proportion of students attaining two GCSE grades from A\* to C in science subjects to be on the national average.

- Compared with other subjects, sciences are around the average for GCSE attainment in the school and are slightly above the national average.
- Scrutiny of students' work shows that their work is most often complete and well presented with much that shows attainment to be at least satisfactory with some well above average knowledge and understanding seen.
- In some lessons there is also evidence of exceptional performance with students showing knowledge and understanding of science well above the expected.
- Students exhibit very good behaviour and they demonstrate aspects of good personal development such as acting responsibly in group and practical activities.

Quality of teaching and learning of science

Teaching and learning are good.

- The focus of the senior leadership team on developing teaching and learning and the skills of middle managers has created a positive environment for the improvements in science.
- Teachers are providing students with a good range of learning experiences many of which have relevance to students' lives.
- The majority of lessons were at least good, with some being judged to be outstanding and a minority which were satisfactory. No unsatisfactory teaching was seen.
- The good or better lessons had a clear focus on students' learning with teachers ensuring they engaged students and kept them active. There were some very good examples of teachers not succumbing to a 'quick fix' by simply instructing students what to do but requiring them to think, plan, carry out, review and evaluate.
- Students have a very positive view of the quality of teaching they receive in science with the majority evaluating it as good or outstanding. They appreciate how willing to help and approachable their teachers are.
- The 5Es approach being used in the school is leading to well planned lessons and is supporting effective teaching.
- Assessment practice is changing to accommodate the lack of Key Stage 3 statutory tests. The strategy planned is well suited to a combination of unit tests and more formative assessment.
- Marking of students' work is often of good quality with written comments making it clear what standards are being reached by students and what they can do to improve.
- The large majority of students judge the assessment by teachers as good or better. Assessment for learning techniques are not as well used as they could be.

Quality of the curriculum

The curriculum provided is satisfactory.

• The science curriculum is developing to meet the needs of all students.

- This year the improvements in the science curriculum have made it possible for students to follow GCSE courses in core science, additional science and the three separate sciences of biology, physics and chemistry. It is planned to introduce a course of a vocational nature more appropriate for some students in September of this year.
- The school is looking at introducing post-16 courses in science that will provide a range of appropriate pathways for all students from whatever courses they have followed in Key Stage 4.
- The science department is creating a new scheme of work for students in Key Stage 3 that is ensuring the development of personal learning and thinking skills as well as the science skills described in 'how science works'. This is encouraging greater creativity in teachers.
- There is an appropriate range of enrichment activities including science based clubs, extra-curricular activities and visits.

Leadership and management of science

Leadership and management of science are good.

- The day-to-day running of the faculty is smooth and staff feel well supported.
- Significant changes in the faculty over the last two years have been well led and managed.
- A range of techniques are used to monitor and evaluate standards and teaching. As yet this is not carried out sufficiently systematically.
- Activities such as peer observation are underdeveloped as are other activities to bring about increased sharing of good practice. Science teachers could take turns in carrying out work scrutiny, lesson observations, and presenting good practice items at departmental meetings.
- The organisation and provision of continuing professional development are good. Teachers speak positively about the training they are receiving and the opportunities they have to gain further qualifications.
- Collaboration with a nearby school and associations with higher education providers is leading to significant contributions and gains, such as a development project on mentoring trainees funded by the Training and Development Agency and gaining master's degrees in education through collaboration with Leicester University.
- Self evaluation is carried out well and is leading to rational development planning focused on key issues and areas for improvement.

Areas for improvement, which we discussed, included:

- completing the curriculum changes to ensure there are courses in science to meet the needs of all students
- building on the good teaching already in place by improving the opportunities for sharing good practice to ensure greater consistency
- ensure a more systematic approach to the monitoring of standards and evaluation of the quality of teaching.

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.

Yours sincerely

I an Richardson Her Majesty's Inspector