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Ms C Ellins  
Headteacher  
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Dear Ms Ellins

Ofsted survey inspection programme – Science

Thank you for your hospitality and cooperation, and that of your staff, during my visit on 22 and 23 September 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 evaluating the impact of recent initiatives and to investigate 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 learners, scrutiny of relevant documentation, analysis of students' work and observation of seven lessons.

The overall effectiveness of science was judged to be good.

Achievement in science

Achievement in science is good.

- The GCSE results for those gaining five or more grades A\* to C in science were just above average in 2008 and have continued to improve in 2009. This represents good improvement over previous years when the outcomes were very low.
- GCSE results in science improved significantly with the introduction of new GCSE courses that were first examined in 2008. Analysis of the data shows

a continuing rising trend in results, as the new GCSE courses become firmly embedded into the science curriculum.

- Analysis of performance data for Key Stage 3 shows that the number of students making two levels of progress is good and improving.
- The quality of students' learning and progress is good. Students are keen to learn and most work hard in lessons, especially where the subject material is engaging and interesting.
- The quality and presentation of work in students' books is good. This reflects enthusiasm for science and a positive approach towards learning.
- Attitudes to science are good in all years. Students are keen to be involved in their learning. They enjoy discussions and welcome opportunities to voice their opinions in a mature and sensible way.
- Behaviour in lessons is mostly good, especially where lessons are lively and focused on learning with little opportunity to drift off task.

#### Quality of teaching of science

The quality of teaching in science is good.

- Teachers have good subject knowledge and use this well to make science lessons relevant and interesting to the students.
- Information and communication technology (ICT) is used to support science teaching and engage students' interest. Students can describe a range of activities in science that are supported by ICT and they appreciate the flexibility of the set of laptops used in laboratories.
- The science department has made good use of the opportunity to revise the Key Stage 3 curriculum to develop a focus on scientific skills and processes. They are doing this through the use of 'Thinking Actively in a Social Context' (TASC) techniques. This has been adapted to introduce a strong focus on investigative processes and associated thinking skills that gives students a clear framework when working on investigations.
- Alongside this approach, the teachers emphasise teamwork when students are working in groups through the allocation of different roles. Students say they really like this way of working, although some teachers are more effective than others in organising this approach.
- Assessment of students' work is thorough. Marking is mostly informative and gives clear advice about the standard of work and how it could be improved. In some cases, teachers are not making sure that students follow up on their comments and make the required amendments and improvements to their work.
- Students are not given enough opportunities to be involved in the evaluation of their own work and that of others.

## Quality of the curriculum in science

The quality of the curriculum is good.

- The new revised Key Stage 3 curriculum, along with the introduction of girls into the school from Year 7, has been used well to develop new and creative approaches to teaching and learning in science.
- Planning shows a good emphasis on scientific process and associated thinking skills, as well as delivering content in a way that engages and interests the students.
- The new GCSE courses are particularly successful in raising achievement. Students find these new courses more interesting and relevant to their lives. They like the modular approach to assessment as this gives them regular feedback on their performance.
- These courses have been supported very well by the introduction of the STEMIT (science, technology, mathematics, ICT) initiative through the school's mathematics and computing specialist status. This initiative has been very successful in creating a combined approach across all of the STEMIT subjects, which allows innovative projects to be developed.
- This combined approach has also enhanced liaison with feeder primary schools as younger primary pupils are frequently involved in science activities linked to STEMIT.
- Science curriculum enrichment activities are outstanding. Students are involved in a very wide range of local, national and international contexts. They are keen participants in activities, such as working with the National Oceanographic Centre, entering competitions organised by Southampton University, and a whole host of environmental clubs and activities.
- A particularly successful workshop, 'LifeLab Southampton', is based at the local hospital and is making an important contribution to students' understanding of the need to adopt healthy lifestyles.

## Effectiveness of leadership and management in science

Leadership and management of science are good.

- The school is determined that students will achieve the best they can and this promotes a positive environment for science to develop and improve.
- Performance data are analysed regularly and used to measure performance against challenging targets. The new GCSE courses are supporting this through the modular approach that gives regular updates on attainment that allow any underachievement to be identified quickly.

- The head of science has a clear view of the quality of science education through the rigorous systems the school has put in place for monitoring performance.
- The department is well led and makes a good contribution to the overall improvement of the school and to the STEMIT initiative.

Areas for improvement, which we discussed, include:

- making sure students are given more opportunities to evaluate their own work and that of others
- ensuring that developmental comments in students' books are always followed up in subsequent lessons
- ensuring that day-to-day health and safety practices are implemented regularly in all lessons.

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

Christine Jones  
Her Majesty's Inspector