

08 February 2007

Dr J Vitagliano
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Dear Dr Vitagliano

Ofsted Subject and Survey Inspection Programme 2006/07
Sector Skills Area: 2 Science and mathematics post-16

Thank you for your hospitality and co-operation during my visit on 1 and 2 February 2007. I am grateful to your staff for all their work in preparing the programme and background documentation and giving up their time during the visit. Please pass on my thanks to staff and learners who also gave up their time.

The visit provided much useful evidence for the good practice survey in science. Published reports are likely to list the names of the contributing institutions but should we wish to cite specific aspects of practice we will contact the school first. All letters will be published on the Ofsted website at the end of each half-term.

The evidence used to inform judgements included: interviews with staff and learners, scrutiny of relevant documentation, analysis of learners' work and observation of eight lessons.

I agreed to provide a summary of my observations of good practice seen in the sciences and to suggest some areas for development.

Good practice observed

Achievement and standards

- Psychology and biology pass rates at both AS and A2 have been good over the past three years. The proportion of students achieving A and B grades was well above the national average in 2006. The pass rate in AS chemistry declined sharply in 2006. However, the pass rate in A2 has remained high, but the proportion of high grades declined. The AS physics pass rate declined in 2006, but remained stable for A2.

- Value added data show that students on advanced science courses (including psychology) make progress in line with the level predicted by their prior attainment. Progress in 2006 was best in biology and lowest in AS chemistry and AS and A2 physics.
- The standard of students' work in the current year is good. In psychology written work is good and there is effective development of subject specific vocabulary, writing skills, oral communication and autonomy. In the other sciences the standard of written work is good but students are a little hesitant in using the correct terminology and some second year A level classes do not demonstrate enough autonomy.

Teaching and learning

- Eight lessons were observed, two of which were joint observations with curriculum leaders. Four lessons were judged to be good and four satisfactory. Both psychology lessons were judged to be good.
- Lessons are well planned and the teachers are confident in their subject knowledge.
- In psychology lessons teachers use a good variety of activities and small group work to promote students' understanding. Assessment is sound and progress is good. In addition the teachers effectively use past short-examination questions to develop students writing and explaining skills.
- In the other sciences teachers use ICT with confidence and there is also good emphasis on answering past examination questions. However, students sometimes waste time by copying from the board or having notes dictated to them. Much of the teaching is aimed at the whole class and few differentiated activities are used. There is not enough variety of activity and indeed some lessons are dull. Students are sometimes passive and teachers talk for too long.
- Students are in the main positive about their studies and would recommend the school for its science provision. One young man said he felt the school had prepared him very well for the transition to university. The students interviewed said that homework setting in the sciences was inconsistent. However the psychology students insisted that homework was regularly set and well marked. Some students did not always feel confident as to why practical work was carried out in biology. They also said that overcrowding in biology adversely affects practical work and hinders learning. Others felt that some teachers expected much more from them than others. Some students said that the pace of lessons was too fast and teachers did not always check on everyone's progress and understanding.

ICT in science teaching

- Teachers use IT with confidence and the PowerPoint presentations in chemistry are particularly good. Video clips and links to websites are well used to help students to understand and to consolidate their learning. However, I saw no use of ICT by students in the eight lessons I observed.
- The recent development of Fusion, the school's managed learning environment, looks very interesting and will pave the way for considerable IT developments not just in the sciences.

Leadership and management

- Both the head of science and psychology are clear as to their roles and responsibilities. They give clear leadership to their departments and are well organised. They speak confidently about what needs to be done to bring about improvements. Subject self evaluations are too descriptive, although the supporting documentation is thorough and evaluative. The evaluations do not contain examination trend summaries, comparisons with national examination averages or evaluations of value added data.
- Subject curriculum leaders tend to be very focused on completing syllabus content and operational matters. In discussion they were not confident when asked to describe how teaching and learning could be improved.
- The laboratory accommodation is poor. The laboratories are old and well out of date. Their furniture and fittings are not suitable for the teaching of advanced science courses. The psychology rooms and one of the science laboratories celebrate the achievements of the students on the walls. The other laboratories are dark, gloomy and unattractive. One biology laboratory is too small for the size of the classes and is unsuitable for the Salters' Nuffield practical work. However, there does not appear to be a shortage of basic equipment such as glassware and electrical apparatus.

Areas for development, which we discussed, included:

- the quality of the science laboratories
- consistency in setting and marking of homework in the sciences
- students' use of ICT in lessons
- achievements in chemistry
- the proportion of good teaching in science

I hope these observations are useful as you continue to develop science courses in the college.

As I explained in my previous letter, a copy of this letter will be sent to your LLSC and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Alex Falconer
Her Majesty's Inspector of Schools