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# 8 February 2007

Dr J Guy Principal The Sixth Form College, Farnborough Prospect Avenue Farnborough Hampshire GU14 8JX

Dear Dr Guy

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 29 and 30 January 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 college first. All college 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

Recruitment to science courses is strong. For example, around 600 students currently take AS psychology and a further 400 are studying A2. About 600 are taking advanced courses in biological sciences and over 200 in physics.

- Students' achievements are outstanding. Success rates in all science subjects have been high for the past three years, well above national averages. Retention and A to E grade pass rates have been well above national averages for A2 sciences and at AS were also notably strong. The proportion of students achieving A and B grades at AS and A2 has been high over the past three years.
- Value added data show that students in physics and psychology make very good progress. Students in biology and chemistry make good progress as shown from the value added data and in 2006 students in electronics and environmental science made satisfactory progress.

# Teaching and learning

- Of the eight lessons observed, all were good or better. Two lessons were judged outstanding and the others all had very good features.
- Lessons very well planned and science teachers have good subject knowledge. They promote a very good working atmosphere and set high standards. Students show enthusiasm in their lessons and respond very positively to the activities and learning materials.
- Very good use is made of a wide range of teaching materials. I
   observed card sorts, printed work sheets, stimulus questions for paired
   group work, mini whiteboards, video clips and models being used to
   promote understanding.
- Teachers are confident users of IT. Students' attendance and progress are routinely recorded electronically and electronic whiteboards are effectively used in most science lessons. However, the students used IT to promote their learning in only two of the observed lessons.
- Assessments are well organised and thorough. Science teachers are
  particularly skilled at asking probing questions to informally assess
  progress. The students are used to an ethos in which explanations are
  sought and answer with confidence. Reasoning is examined, the
  students are effectively encouraged to use appropriate subject
  vocabulary and there is a good emphasis on explaining methodology
  and evaluation.
- Lesson plans are routinely shared with students, but sometimes only superficially. This sharing could be more explicit in order to better inform the students of the outcomes and processes involved.

### ICT in science lessons

• This visit has demonstrated the successful use of ICT in science teaching. As mentioned above I have seen ICT successfully used for assessment and record keeping; to promote understanding through video clips and animations, electronic textbooks and diagrams and to test mastery through well designed quizzes. The physics provision at AS and A2 make considerable use of IT for student assignments and revision. In an environmental science lesson very effective use was made of laptop computers, email and website links. As a result the

- students deepened their knowledge and understanding of biological resource management.
- Although many colleges have subject intranet sites, the psychology site
  I was shown is of a very high standard. It is "user friendly", up to date
  and promotes the subject is a highly professional way. Media links to
  television, magazines and other resources are obvious and helpful and
  the site is well used by students.

# Leadership and management

• The science departments are very well managed by curriculum leaders who are enthused and hard working. The teachers are reflective and confidently support the emphasis on teaching for learning from senior management. Recent changes to the management of teaching and learning have been broadly welcomed. There is a consistent approach to quality assurance and centrally produced data is well analysed. Students' progress, attendance and retention are well recorded. Teams are self critical work collaboratively to produce annual assessment reports.

Areas for development, which we discussed, included:

more explicit sharing of lesson aims with students.

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