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Dr J Godfrey Principal Hereford Sixth Form College Folly Lane Hereford Herefordshire HR1 1LU

Dear Dr Godfrey

## Ofsted 2010-11 good practice survey inspection programme: improving science in colleges

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 7 and 8 March 2011 as part of our survey in science.

The visit provided valuable information which will contribute to a national report. Published reports are likely to list the names of the contributors or contributing institutions but individuals and institutions will not be identified in the main text without your agreement.

The evidence base included: discussions with staff and learners; observations of seven lessons; a review of documentation; and a tour of the science facilities with a technician.

## Features of good practice

- Pass rates and success rates are consistently very high for science courses. The proportion of students achieving high grades in science courses is consistently well above the national averages. Value-added data show that for most advanced level courses students achieve grades well above those expected based on prior attainment data.
- The teaching of science is very good. Teachers have excellent subject knowledge. They have real enthusiasm for their subjects and this is communicated well to their students. Explanations of concepts are very clear and teachers make good use of analogies and models to explain abstract concepts. The way teachers build up diagrams and formulae on the whiteboard in a series of steps helps students to develop their understanding.

- Lessons are very well planned and provide a very good range of different activities which promotes understanding and reinforces learning. Very good use is made of practical and experimental work. Learning materials are of very high quality and information and communication technology is used well. Lessons are conducted at a brisk pace and good use is made of time.
- Teachers set high standards and have high expectations but do so within a supportive and encouraging culture. They know their students very well. Highly effective directed questioning is used to establish and reinforce prior knowledge, to develop ideas and to check understanding.
- Teachers are highly skilled at assessing students' progress in class. They are alert to their students' needs and adapt their teaching to deal quickly with any misconceptions. The strong focus on examination requirements helps students to understand exactly how to achieve the best grades they can.
- Students have excellent attitudes to learning and these make a significant contribution to their achievement. They make good use of the virtual learning environment which provides useful additional learning material for independent study.
- Students are extremely positive about the science teaching they receive. They particularly value the individual support and help that is readily available from teachers, both through workshops and from individual teachers.
- The offer of AS- and A-level environmental studies in addition to AS- and A-level physics, chemistry and biology, enhances choice. This provides a science-based subject for students with an interest but who do not wish to specialise in science. It is particularly relevant given the location of the college in a rural county. It has also been used successfully as a one-year fast-track option for students who have changed their minds about subject choices after their AS year.
- Effective systems are in place to track students' progress against their target grades. Students' work is assessed regularly. Those who might be at risk of underachievement are identified early and interventions planned.
- Leadership and management are highly effective at all levels. Self-assessment, including that within the departments, is thorough and is soundly based on a detailed analysis of available evidence. As well as highlighting the many significant strengths, subject self-assessment reports note areas for improvement such as AS retention and A\* grades.
- Excellent use is made of the wealth of data available, such as ongoing assessment data, module examination results and value-added data including analyses for different groups.
- Within the science department, teamwork is very strong. The consistency of approach and the use of standardised homework and assessments help to ensure that all students receive a similarly high-quality experience.

Teachers are reflective practitioners who are keen to develop and share their own skills and teaching methods.

## Areas for improvement, which we discussed, include:

■ continuing with the college's existing strategies to further improve retention rates on AS courses, and to improve the proportion of students gaining A\* grades in biology and chemistry.

I hope that these observations are useful as you continue to develop science provision.

As I explained previously, a copy of this letter will be sent to the relevant funding bodies and will be published on the Ofsted website. It may be used to inform decisions about any future inspection.

Yours sincerely

Ruth James Her Majesty's Inspector