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Dr Alison Birkinshaw Principal Nelson and Colne College Scotland Road Nelson Lancashire BB9 7YT

Dear Dr Birkinshaw

Ofsted Subject and Survey Inspection Programme 2006/07

Sector Skills Area: 2 Science post-16

Thank you for your hospitality and co-operation during my visit on 2 and 3 October 2006. I am particularly grateful to for all the hard work put into preparing the programme and background documentation and the great deal of time given by staff during the visit. Please pass on my thanks to all the staff and learners who gave up their time to talk to me.

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 lessons.

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

Achievement and standards

- Overall the results for GCE A level science subjects were very good in 2006. Physics, chemistry and biology all had particularly high success rates.
- Overall the results for GCE AS level science subjects were very good in 2006. Success rates were particularly high in chemistry, biology and psychology.
- Results for GCSE science courses in 2006 were outstanding. Retention rates for all science GCSE courses were high. The proportions of

- students achieving grades A*-C in applied science, single science, human physiology and health, and psychology were all excellent.
- In 2006 the success rates for advanced level science students of minority ethnic origin were excellent. They were well above those for white British students.
- The performance of students of minority ethnic origin on level 2 courses in 2006 was similar to that of white British students.
- Students' attendance is very good.

Quality of provision

- Teaching and learning in science are very good.
- Lessons include a very good range of interesting activities which motivate students, help them to develop their skills, knowledge and understanding, and involve them effectively in their own learning.
- Teachers use question and answer techniques very well. Directed questions are used to check prior knowledge and understanding, involve all students, and encourage students to think.
- A brisk pace is maintained in lessons encouraging students to maintain attention, stay focused and work productively throughout. No time is wasted, and skilful teacher interventions keep students on task.
- Good use is made of ICT in teaching and learning. For example, electronic whiteboards are used well in lessons in different ways to enhance learning.
- Lesson planning is thorough, and includes strategies for differentiation which are implemented well in lessons. For example, teachers provide additional work for those who complete tasks quickly, and target weaker students for extra help in lessons.
- Learning materials are of high quality.
- Teachers have high expectations which they communicate very well to their students. Students are well supported and encouraged, but challenged to produce work to the very best of their ability.
- Assessment practices are well developed and effective. In lessons teachers are adept at using different techniques such as student whiteboards, electronic voting systems, and verbal dominoes. Marking is constructive, with comments that help students understand what they need to do to improve their work and grades.
- Highly effective use is made of individual target setting, particularly at advanced level.
- Progress monitoring by subject teachers is thorough, and underachievers are effectively targeted for additional help.
- Extremely good use is made of subject support workshops. Students who are at risk of not achieving their target grades are directed to attend and other students can attend voluntarily. In workshops difficult topics are revised, and students receive individual help.
- There are effective systems for monitoring overall student progress through the tutorial system.

Leadership and management

- Leadership and management demonstrate a strong focus on student achievement, and a student centred approach to addressing any issues and problems that arise.
- The college has an inclusive ethos and culture. It provides a harmonious learning environment for students from different backgrounds and cultures.
- Effective use is made of data to analyse performance by age, gender, ethnicity and disadvantage.
- Self assessment is particularly effective. There is a rigorous approach to identifying all weaknesses. Action plans to address these are thorough, detailed and realistic.
- There is a culture of continuous improvement, which is communicated successfully. Staff at all levels are committed to improving their practice for the benefit of their students.

Areas for development, which we discussed, included:

- improve retention rates for GCE AS level chemistry and physics which were below national averages in 2005 and 2006
- improve the results for GCE A level psychology which in 2006 were not as good as in the previous two years; pass rates and success rates in 2006 were similar to national averages, whereas in 2004 and 2005 they were high
- further develop the use of value added analyses to highlight aspects of student achievement relative to prior attainment.

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

Ruth James Her Majesty's Inspector of Schools