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13 February 2012

Mr N Spurdell Headteacher John O'Gaunt Community Technology College Priory Road Hungerford RG17 0AN

Dear Mr Spurdell

# **Ofsted 2011–12 subject survey inspection programme: science**

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 30 and 31 January 2012 to look at work in science.

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 without their consent.

The evidence used to inform the judgements included: interviews with staff and students; scrutiny of relevant documentation; analysis of students' work; and observation of seven lessons.

The overall effectiveness of science is good.

#### Achievement in science

Achievement in science is satisfactory.

- Attainment is improving strongly over time, as a result of substantial improvements to both teaching and the science curriculum offered in the past two years. However, these improvements have come too late to impact on the satisfactory progress made by Year 11 students in 2011. The standards they attained were broadly average, consistent with their average attainment on entry to the school.
- The written work of current Key Stage 4 students is of good quality and the school has secure evidence through internal tests and external GCSE results to show that achievement is now good and should result in better results in 2012. The intellectual demand for these students is now consistently high, including in the BTEC applied science course, for example in a complex electrochemistry experiment and discussion.

- Science standards across most of Key Stage 3 are also high, a consequence of new subject leadership emphasising the need to challenge and motivate students through interesting practical investigations. Students are responding positively to this approach.
- The sixth form is also improving; students' progress at AS-level is now above average. At A-level, students attained broadly average results.

## Quality of teaching in science

The quality of teaching in science is good.

- Most students enjoy good teaching in science lessons, with some outstanding examples observed. The very best teaching is characterised by very well planned and prepared practical resources, with lessons starting with a short briefing to students before letting them explore the science for themselves. Sufficient time is provided for students to think for themselves, discuss their ideas, raise questions, make choices about how to solve the problems, respond to the teacher's questions in full sentences, and conduct independent research using in-lab resources including the internet, and well-chosen multimedia illustrations.
- Although teachers have ample information about students' prior learning, most lessons assume a common starting point; if that point is quite difficult, then students can rise to the challenge from the outset, with those who need support receiving individual instruction. However, sometimes the tasks observed were easy, did not require much intellectual effort, and resulted in steadier learning, with some lack of interest and engagement of students.
- Marking of day-to-day work is consistently good, with many examples of teachers giving excellent written feedback on what is good about the work and what could be done to improve it. Students' response to this advice was inconsistent, however; some act on advice regularly, others clearly ignore repeated instruction to complete work.

### Quality of the curriculum in science

The quality of the curriculum in science is good.

- Although good now, the curriculum was not so in the past. Previously, some students followed courses that limited their post-16 progression despite the school's level 3 BTEC in forensic science offer. This arose from pessimistic Key Stage 3 teacher assessments. New thinking, including starting Key Stage 4 in Year 9, and better moderation of teacher assessments are helping students to follow appropriate triple science, or core plus additional, or BTEC applied science routes.
- Some very effective cross-curricular links, particularly with art and English, are helping to raise the profile of science among the student population. Very good display work adds to a strong sense of scientific identity in the corridors and laboratories.

- Students have access to a wide range of extra-curricula events, including trips, visits by science professionals, science clubs and revision classes.
- Good links with local primary schools allow younger pupils to spend a session doing experiments in a laboratory; this is great fun for all including the teachers, and motivates younger pupils towards science in their futures.

#### Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is good.

- With the strong support of the senior leadership team, the new, enthusiastic and highly skilled head of science is reinvigorating the department's approach to teaching. She is doing this by putting scientific investigation and practical illustration at the heart of teaching and learning.
- Teaching resources are well maintained, and used to ensure students of all ages experience interesting scientific experiments and phenomena.
- Staff changes have in the past hampered continuity, and remain a potential threat to raising achievement over the long term, but the school is managing recent changes very well.
- The school is meeting the science professional development needs of staff adequately, with good internal staff discussion that is resulting in sharing of good practice; staff potentially have scope to network with other schools to learn from a wider range of provision.

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

- working as a department to share best practice on planning lessons that ensure students of all abilities are doing activities that challenge them intellectually and build on their prior knowledge
- monitoring Key Stage 4 curriculum pathways to ensure students are not compromised in their progression post-16
- involving students more in decisions about their learning, by giving them some choices about the tasks they do in lessons, and how they might tackle those tasks.

I hope that these observations are useful as you continue to develop science in the school.

As explained previously, a copy of this letter will be published on the Ofsted website. It may be used to inform decisions about any future inspection. A copy of this letter is also being sent to your local authority.

Yours sincerely

Brian Cartwright Her Majesty's Inspector