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Mr A Johnson Headteacher Springwood High School Queensway Gaywood King's Lynn PE30 4AW

Dear Mr Johnson

## Ofsted 2012–13 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 3 and 4 July 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, governors and students; scrutiny of relevant documentation; analysis of students' work; and observation of 13 lessons.

The overall effectiveness of science is satisfactory.

#### **Achievement in science**

Achievement in science is satisfactory.

- Students arrive with broadly average attainment levels from primary school, and make satisfactory progress in Key Stages 3 and 4, and in the sixth form. The slightly better achievement of girls in the 2011 GCSE examinations can be traced to previous curriculum models.
- Standards of science work in students' exercise books and in topic tests are broadly average. The school has improved the reliability of teacher assessments in Key Stage 3, and of monitoring progress in Key stage 4 so that students who are slipping behind can be given appropriate support.
- The proportion of students choosing to continue studying science from AS level to A2 has been low in recent years, leading to changes in admission criteria to the sixth form, and more detailed career advice for current Year 12 students.

■ Work scrutiny, and discussion with students, suggests that in some classes, practical investigations are given a lower priority than other activities. Once given the opportunity, students worked responsibly to carry out experiments, and they also enjoyed extended research projects such as a recent Year 7 musical instrument topic.

## Quality of teaching in science

The quality of teaching in science is satisfactory.

- The majority of lessons observed were good. Students spent most of their time actively engaged in demanding activities that challenged them to succeed. In all these lessons, a practical activity, or sophisticated modelling of a difficult science concept, captured their interest.
- Good teacher subject knowledge allowed students to ask questions, and teachers to adapt the activity to help explain the idea at the students' own level. The best lessons were well prepared with a range of resources. Teachers gave students the time and freedom to find out the ideas for themselves.
- Where teaching was weaker, teachers directed the activity too much, and pitched it at too low a level for many students in the class, so all students tackled the same activity at the pace set by the teacher. This was either too easy for many, or sometimes gave insufficient time for students to think and reflect about the scientific ideas.
- Marking and feedback were inconsistent, sometimes perfunctory, because most written content of students' books in any one class was identical; all that was left to mark was its presentation and the amount completed. Students are not yet receiving sufficient opportunities to explain their ideas, or to research the science topic for themselves.

### Quality of the curriculum in science

The quality of the curriculum in science is satisfactory.

- Until the current academic year, about half the students took a double science award, one class studied triple science, and the rest sat core science. That model limited many students' access to opportunities at 16. Now, all students will study at least two GCSE or equivalent courses, with several classes studying triple science and one group following OCR National applied science. A common Year 9 science curriculum is based on GCSE core science, with the various pathways chosen for the start of Year 10.
- Detailed schemes of work now allow teachers easy access to a model lesson for any topic, but sometimes these plans are not adapted sufficiently to meet the prior learning and academic needs of particular classes, resulting in a lack of challenge and low expectations for some students.
- The school has increased the GCSE threshold for admission to separate science AS levels from grade C to grade B, and improved the quality of

advice and guidance, in an attempt to reduce the previously high proportion of students who did not complete A2 courses. Current students say they are please with their choices.

# Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is satisfactory.

- A detailed and salutary review of the faculty in January 2012 pinpointed strengths as well as some significant areas for improvements, particularly in relation to assessment, some areas of teaching, and lesson planning. As a result, swift action including external support has already begun to address the concerns. The involvement of all science staff with responsibilities in the faculty will accelerate the improvement required, particularly in assessment and feedback to students.
- Practical resources are well managed despite the dispersal of science laboratories across three buildings. Some laboratories feature excellent displays of students' work. Technical staff have appropriate access to training and development.
- Professional development for teachers is predominantly related to examination courses, appropriate in the light of recent curriculum changes.

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

- ensuring that all lessons provide activities that challenge and motivate students from the outset, including opportunities for students to find out the science ideas for themselves
- setting regular written activities that give students opportunities to research key science ideas, or plan, carry out and report on practical investigations and projects, consistently mark that work and then feed back the next steps students should take.

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.

Yours sincerely

Brian Cartwright Her Majesty's Inspector