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Mr J Wells Headteacher Clevedon School Valley Road Clevedon Somerset BS21 6AH

Dear Mr Wells

# **Ofsted 2010–11 subject survey inspection programme: science**

Thank you for your hospitality and cooperation, and that of the staff and students, during my visit on 7 and 8 February 2011 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; observation of 10 lessons.

The overall effectiveness of science is good.

#### Achievement in science

Achievement in science is good.

- Science is one of the school's highest performing subjects. Students make good progress between Years 7 and 11 in developing their knowledge and understanding of science and their skills of scientific enquiry.
- By the end of Year 11, the percentage of students attaining two or more A\* to C GCSE grades or their equivalent is above the national average.
- The progress made by higher attaining boys taking GCSE examinations in 2010 was slightly below that of their peers.
- Science subjects are a popular choice in the sixth form and students make good progress on AS and A2 level science courses.
- Students enjoy science and relationships are positive between teachers and students in lessons. Students demonstrate good attitudes to learning,

behave well and willingly become involved in the activities arranged for them by teachers.

## Quality of teaching in science

The quality of teaching in science is good.

- The large majority of teaching observed was good or better, but the overall quality was variable.
- Teachers use their very good subject knowledge effectively to improve students' learning and prepare them well for examinations.
- Lesson outcomes are routinely shared with students at the beginning of lessons in order to focus their learning. These are revisited effectively at the end of lessons to evaluate students' progress.
- In the best lessons, teachers plan activities that actively engage students in learning and set tasks with different starting points to meet the full range of students' needs. Once students are working independently, teachers assess students' learning through effective questioning and modify their teaching accordingly.
- In a small minority of lessons, teachers did not carefully monitor students' learning and some student misconceptions were not addressed. In addition, tasks were not consistently well matched to the ability of students in the class, particularly the higher attaining students.
- Students' books are marked regularly and in most cases teachers give clear and helpful advice to students about how to improve their work. However, this good practice is not consistent across the department.

#### Quality of the curriculum in science

The quality of the curriculum in science is good.

- The curriculum is very well organised and planned to ensure that there is good progression in students' learning.
- The department has developed a good skills-based course in Years 7 and 8 with a clear focus on promoting students' skills of scientific enquiry. Opportunities to assess the development of these skills are well integrated into the curriculum.
- Key Stage 3 schemes of work are flexible and can be adapted by teachers to meet the needs of students in their class. However, they do not specify in enough detail the expected learning outcomes for students of different abilities.
- Although staff are given generic guidelines on safe working in lessons, schemes of work do not always provide advice about the necessary safety precautions during specific experimental work.
- The Key Stage 4 curriculum provides students with a range of both academic and vocational science courses that meets their needs extremely well.

A range of science-related trips and visits successfully enhances students' enjoyment of science.

## Effectiveness of leadership and management in good

Leadership and management in science are good.

- The director of learning and subject coordinator work well together to provide the department with strong leadership that is focused on ensuring that students enjoy science and make good progress.
- Science leaders have created a good team spirit in the department and staff work together well to share and improve their teaching practice.
- Senior leaders and the subject coordinator monitor teaching regularly and robustly. Joint observations undertaken during this inspection confirmed the accuracy of their judgements.
- Targets at all key stages are challenging and reflect the high expectations of the school and the department.
- Students' progress is carefully monitored allowing `underachievers' to be identified. Effective interventions are in place to promote their improvement.

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

- increasing the percentage of good and outstanding teaching by ensuring that all lessons:
  - provide students, particularly the most able, with a good degree of challenge
  - include a broad range of opportunities that actively engages students in their learning and promotes effectively the development of their independent learning skills
- ensuring that all schemes of work provide clear and specific health and safety advice about practical experiments.

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

As I 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. Except in the case of academies, a copy of this letter is also being sent to your local authority.

Yours sincerely

Peter Sanderson Her Majesty's Inspector