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Ms M Davies-Jones Headteacher Cove School St John's Road Cove Farnborough GU14 9RN

Dear Ms Davies-Jones

Ofsted survey inspection programme - science

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 6-7 July 2009 to look at work in science.

As outlined in my initial letter, as well as looking at key areas of the subject, the visit had a particular focus on tracking the impact of recent initiatives and investigating the need for future developments.

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. All feedback letters will be published on the Ofsted website at the end of each half-term.

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

The overall effectiveness of science was judged to be good.

Achievement and standards

Students' achievements are good and standards in science are above national average.

- Key Stage 3 attainment in science has varied over the past three years and in 2008 declined to national average. However, attainment in science is improving in this key stage.
- Attainment in science at Key Stage 4 has improved recently and in 2008 the proportion of students achieving at least two A\*-C grades in GCSE was above the national average. Pass rates for the separate sciences at A\* to C and the proportion of A\* and A grades were also

broadly around national averages. However the A\*to C grade pass rate for core and additional science was above national average in 2008.

- Progress is satisfactory at Key Stage 3 and has improved to above national averages at Key Stage 4. No group by gender, ability or ethnicity makes significantly different progress in science than any other.
- Students' work in class is good and they work well together when carrying out investigations.
- Behaviour is good, the students enjoy their science lessons and they work safely in the laboratories.
- The standard of their written work is also good. Exercise books and files contain a good variety of science work including appropriate ways of recording, researching and reporting their findings.

Quality of teaching and learning in science

Teaching and learning in science are good.

- The lesson observations carried out by school staff and managers accurately judge teaching and learning to be good.
- Science lessons are taught by confident and well qualified teachers. They manage behaviour well and bring a good mix of activities and investigations to the science lessons.
- Practical work and investigations are a regular part of science lessons and have appropriate relevance to the topics under study.
- However, science lessons do not always meet the needs of the most able or those of more modest ability. Science lessons tend to be the same activity for the whole class and differentiated activities were not observed during the visit.
- Teachers use information and communication technology (ICT) well, including animation and video clips, to introduce and to illustrate ideas in lessons. The use of ICT by students is developing and the science virtual learning environment (VLE), which can be accessed from home, is popular with the students when revising for tests and public examinations.
- The very well organised science, technology, engineering and mathematics (STEM) day for Year 10 students was a great success. Teachers and visitors put on a carousel of interesting and challenging activities throughout the day. A great deal of fun was had by the students who also learned a good deal in informal and small team settings.
- Assessment is strong and regular topic tests contribute to a well organised system for tracking and monitoring students' progress. Well focused interventions from teachers and other specialist staff are informed by the central tracking records.
- Students' work is regularly marked and teachers usually make helpful comments on how to improve. However, managers recognise that there is still work to do to bring all marking to the same level of consistency.

## Quality of the science curriculum

The science curriculum is good.

- The Key Stage 3 science curriculum is in transition. A successful Year 7 curriculum has recently been introduced. This is popular with both teachers and students as it focuses in a lively way on how science works and there are plenty of interesting and relevant investigations to carry out. The curriculum for Years 8 and 9 is currently being reviewed and developed.
- The Key Stage 4 science curriculum is good and meets the needs of the students well. An increasing proportion of students are now taking the separate sciences for GCSE. A BTEC intermediate science course is followed in Year 11 by two sets of students. A group of students who attend vocational courses at the local further education college will also have the opportunity to take the BTEC when they reach Year 11. The remainder of the year group take core and additional science. This flexible approach means that the students can opt for a combination of science studies to meet their aspirations.
- Enrichment is outstanding. A full and comprehensive range of out of school science activities successfully challenge and enthuse the students. The science club meets regularly and there is also a very good range of trips and visits. A successful robotics club provides fun and challenge not only to students but to children and parents from local primary schools. Regular contributions by local businesses also enhance science, technology, engineering and mathematics (STEM) days and other activities such as first aid.

Leadership and management of science

Leadership and management of science are good.

- There is a clear vision and direction for the sciences from senior leaders and the science team contributes significantly to meeting the school's technology status targets.
- The sciences are well led by two experienced coordinators. The team work well together in developing the curriculum, assessment and tracking and providing interesting and challenging after-school enrichment.
- Continuing professional development is strong and the science teachers and technicians have benefited from relevant training activities over the past year.
- Resources are good and there is no shortage of specialist equipment. All of the laboratories are fit for purpose, but one is much older and less well equipped than the others. ICT resources are good and the science team has full use of an ICT suite of computers.
- Overall, attainment has improved and there is an appropriate focus on curriculum development and on improving learning.
- One member of the science staff has developed, through the specialism, very good links with local primary schools. Regular science

activities take place in the primary schools, run by members of staff from Cove. In addition, science related in-service training has been completed for primary school teachers.

- There is also well-developed collaboration with local businesses. In particular, Qinetiq, TAG Aviation and IBM have been generous sponsors of science activities and materials.
- The science staff have worked hard recently to foster team work, assessment and curriculum development. They are aware of the need to continue to raise attainment and to focus on developments in teaching and learning.

Areas for improvement, which we discussed, included:

- improving attainment in science at Key Stage 3
- developing lesson planning to better meet the needs of all students through differentiated activities
- developing more consistency and follow up to marked work.

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

As I explained in my previous letter, a copy of this letter will be sent to your local authority and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Alex Falconer Her Majesty's Inspector