

Aviation House  
125 Kingsway  
London  
WC2B 6SE

T 0300 123 1231  
F 020 7421 6855  
[enquiries@ofsted.gov.uk](mailto:enquiries@ofsted.gov.uk)  
[www.ofsted.gov.uk](http://www.ofsted.gov.uk)



27 January 2012

Ms C Unsted  
Headteacher  
Sydenham School  
Dartmouth Road  
London  
SE26 4RD

Dear Ms Unsted

### **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 16 and 17 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; observations of 10 lessons and science, technology, engineering and mathematics (STEM) enrichment activities.

The overall effectiveness of science is good.

#### **Achievement in science**

Achievement in science is good.

- In 2010/11, around 90% of the students in Year 9 achieved Level 5 or better in science assessments. The proportion obtaining two or more GCSE A\* to C grades in science improved from 46% in 2008 to 69% in 2011. Pass rates at advanced level were 100%, half of which were A or B grades.
- AS-level pass rates were more modest. At Key Stage 4, the attainment of students in receipt of free schools meals was lower than their peers. Some students from Black African and Black Caribbean backgrounds also have slightly lower attainment in science; actions are in place to address this.

- Because of good progress in science in Years 7 and 8, and especially in Year 9, more students are studying separate sciences at GCSE. Progression from Key Stage 4 to science subjects in the sixth form is high, as is students' progression to higher education in the sciences.
- Standards of work in lessons are good. The students work hard in their lessons and show real enthusiasm for their studies. Their behaviour is very good and a caring and encouraging atmosphere is very apparent.

### **Quality of teaching in science**

The quality of teaching in science is good.

- Teachers plan their lessons well and the students enjoy relevant and interesting practical investigations. In the best lessons, the students knew exactly what they had to do and what was expected of them. They were actively involved from the start. However, in a minority of lessons, the students were not involved soon enough; the teacher spoke for too long, delaying the start of practical work.
- In the majority of lessons, differentiated activities were successfully planned and carried out. The most able students were challenged to extend their thinking and, especially in mixed-ability groups in Years 7 and 8, all students were set appropriate and stretching tasks.
- Students' work, including practical skills, is well marked and regularly scrutinised. Teachers' comments are helpful and, in most cases, the students know what they have to do to improve. In the best marked work, spelling and grammar are corrected and followed up.
- Tracking and monitoring are well developed and teachers are well aware of the progress being made in their classes. Over the past two years, teachers have successfully supported students in Years 8 and 9 who were identified as making less progress than their peers.

### **Quality of the curriculum in science**

The quality of the curriculum in science is outstanding.

- In Year 7, the science scheme has proved not only popular with the students, but successful in enthusing and motivating them. Effective strategies are in place to improve reading and literacy.
- Very good use is made of the Year 9 science curriculum. Over half the students start GCSE separate sciences and complete one module each of biology and chemistry. The remainder take a school-devised science skills curriculum that prepares them for applied science GCSE.
- A BTEC National Diploma in applied science is offered in the sixth form alongside separate science A levels, which provides a route for BTEC applied science students.
- Enrichment of the science curriculum is a key strength of this provision. A wide range of trips, visits and speakers gives the students plenty of opportunities to widen their understanding and to take part in lively

debates and discussions. A trip to the Large Hadron Collider will take place in February and students trained as STEM ambassadors have prepared and taught some science topics in local primary schools.

- Science clubs in Years 7 and 8 have proved so successful and popular that extra sessions are now regularly put on and there is a waiting list to join. Activities leading to Creativity in Science and Technology (CREST) awards provide the students with interesting activities and competitions. These have recently been filmed by STEMNET and the school's STEM activities with their community have been recognised by national awards.

### **Effectiveness of leadership and management in science**

The effectiveness of leadership and management in science is outstanding.

- The science faculty is very well led, both by senior managers who are fully supportive of science and the STEM agenda, and by the faculty leaders. Morale is high in the science team and staff take considerable pride in the students' success. The teachers are well qualified and good opportunities for relevant professional development are both offered and taken up.
- Attainment in science has rapidly improved over the past three years and teachers have worked hard to improve both learning and the curriculum to meet the needs of the students.
- The laboratories are well supplied with specialist equipment and the technicians provide a highly effective service for investigative work.
- Science teachers have responded well to initiatives in the school to undertake short research projects relating to the way students learn. Their findings are making a positive contribution to raising standards.
- The science faculty self-assessment report and action plans are rigorous and clearly identify the key strengths and areas for improvement.

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

- ensuring that any underachievement at Key Stage 4 and AS level is quickly identified and relevant support is put in place, so that progress and achievements of those supported match that of their peers
- ensuring that students are actively involved in science lessons from the start and that teachers do not take too long to introduce lessons.

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

**Alex Falconer**  
**Her Majesty's Inspector**