

Aviation House  
125 Kingsway  
London  
WC2B 6SE

T 08456 404040  
F 020 7421 6855  
[enquiries@ofsted.gov.uk](mailto:enquiries@ofsted.gov.uk)  
[www.ofsted.gov.uk](http://www.ofsted.gov.uk)



18 November 2009

Mr D Keetley  
Headteacher  
Kirkby Stephen Grammar School  
Sports College  
Christian Head  
Kirkby Stephen  
CA17 4HA

Dear Mr Keetley

Ofsted survey inspection programme – Science

Thank you for your hospitality and cooperation, and that of your staff, during my visit on 8 and 9 October 2009 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. 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 learners, scrutiny of relevant documentation, analysis of students' work and observation of nine parts of lessons.

The overall effectiveness of science was judged to be good with outstanding features.

Achievement in science

Achievement in science is good overall.

- Achievement at Key Stage 4 is outstanding. Standards are well above average. The last set of validated data on GCSE performance show that the proportion of students achieving two or more grades A\* to C in science subjects was significantly above the national average. Given that these students had slightly below average attainment on entry, this represents outstanding progress.
- GCSE science and additional science have had high A\* to C pass rates for the last two years.

- A high proportion of students gained A\* or A grades in science and additional science in 2008 and 2009.
- The results of national tests at Key Stage 3 have consistently shown high proportions of students achieving the expected Level 5 and the higher levels. The current teacher assessment procedures for the end of Key Stage 3 show that this continues.
- A-level pass rates are typically high. AS-level pass rates are more variable. Value-added analyses show that students' progress from their starting points in the sixth form varies from year to year.
- In lessons, students' behaviour is typically very good and often outstanding. Attitudes to learning are good and students tackle the set tasks conscientiously and with interest.
- In the majority of lessons students make at least good progress.

### Quality of teaching of science

The quality of teaching in science is good.

- In the vast majority of the lessons seen, the quality of teaching was good. In one lesson, it was outstanding.
- In lessons, there is a good rapport between teachers and students. Teachers are enthusiastic, supportive and encouraging and this motivates their students.
- Some effective use of information and communication technology (ICT) was seen, although there were no interactive ICT activities because of the lack of interactive whiteboards in science laboratories.
- Teachers employ a range of strategies to engage interest and motivate students. Lessons often feature a range of different activities which progress learning in small sequenced steps.
- There are some good opportunities for students to talk about scientific concepts and discuss their ideas which promote learning.
- Some teachers are particularly adept at devising ways to capture students' imagination with novel demonstrations.
- Teacher's exposition is usually lively and engaging, with good reinforcement of key points, but occasionally it goes on for too long, with students inactive apart from listening or answering occasional questions.
- Teachers have good subject knowledge and most lessons are planned well around clear learning outcomes.
- Some good use was made of practical and experimental work and demonstrations in the lessons observed, especially in chemistry.
- Most teachers are reflective practitioners who are keen to seek ways to improve their teaching.

- Assessment for learning techniques are beginning to be developed and used in lessons. In the best lessons, teachers are astute at picking up any misunderstandings and adapt their teaching accordingly.
- Students enjoy most of their science lessons and speak positively about much of their experience of science.
- Assessment is carried out systematically and students' progress is monitored highly effectively at Key Stage 3 and Key Stage 4. The monitoring of progress is less consistent in the sixth form, and in biology there is insufficient feedback to students on progress towards their targets.

### Quality of the science curriculum

The curriculum for science is good.

- The curriculum at Key Stage 4 is outstanding, with a wide range of science courses offered. This includes GCSE physics, chemistry, biology, science, additional science, environmental and land-based studies, applied science and a vocational first certificate course in applied science. Despite small numbers choosing some courses, imaginative timetabling and staffing solutions are sought to ensure that all students are able to study appropriate courses.
- The sixth form curriculum includes AS and A levels in physics, chemistry and biology but there are no alternative courses at present.
- The Key Stage 3 curriculum is gradually being adapted and developed to increase the focus on 'How science works'.
- Various science and associated enrichment activities are offered. One example is the green power 'eco-car' which students have built and raced.
- Some opportunities to undertake independent investigations are offered and students talked of these with enthusiasm.

### Effectiveness of leadership and management of science

Leadership and management of science are good.

- The head of department is an extremely capable leader, who maintains a strong focus on continuous improvement.
- Leadership of initiatives at Key Stage 4 has led to excellent achievement. There is a real commitment to offering the most appropriate courses for all of the school's students.
- There is good senior leadership support for science, and a clear understanding of key issues at senior management level.
- There is a small committed team of science teachers, with specialists in physics, chemistry and biology.
- Day-to-day operational management is highly effective, and teachers are deployed appropriately according to their specialisms and expertise.

- Good use is made of the full range of skills and industrial experience of some science teachers, and these are valuable assets in this small school.
- There are few opportunities for teachers to share good and outstanding practice, for example, by observing each others' lessons, which could further improve the quality of teaching and learning.

Areas for improvement, which we discussed, included:

- developing more opportunities for the good and outstanding practice in teaching to be shared, to further improve lessons
- reviewing the sixth form curriculum and considering the introduction of alternatives to AS and A level which would meet a wider range of student needs in the sixth form.

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

Ruth James  
Her Majesty's Inspector