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Mr G Murphy Headteacher Broughton Hall High School Yew Tree Lane West Derby Liverpool Merseyside L12 9HJ

Dear Mr Murphy

Ofsted survey inspection programme – Science

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 9-10 March 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: analysis of data, interviews with staff and learners, scrutiny of relevant documentation, students' work and observation of lessons.

The overall effectiveness of science was judged to be good.

Achievement and standards

Overall standards are above average and achievement is good.

- A*-C pass rates for GCSEs in science subjects are consistently above national averages.
- The proportions of students gaining at least two GCSE grades A*-C in science subjects in 2007 and 2008 were above the national averages.
- Students make good progress in science during Years 7 to 11.
- Students often do better in science than in other subjects at Key Stage 4.
- In the lessons observed students made good progress.
- Standards in the sixth form are average and achievement is satisfactory.
- Achievement in AS and A level applied science in 2008 was inadequate. Recent assessment data are indicative of better achievement for current students.
- Students' behaviour in science lessons is at least good, and often exemplary.

Quality of teaching and learning

Teaching and learning in science are good.

- All the lessons observed were good.
- Teachers have good subject knowledge. They are enthusiastic, committed and caring.
- A good range of learning activities is included in lessons to engage interest, motivate students and develop understanding.
- There are many good opportunities for practical and experimental work which are particularly enjoyed.
- Very good use is made of information and communication technology (ICT) to enhance learning.
- Teachers are adept at monitoring the progress of individuals in lessons and targeting support where it is most needed.
- Relationships between teachers and students are very good.
- Teachers use very effective questioning techniques which ensure that there are productive interactions in lessons involving many students.
- Teachers' explanations are very clear and they take care to reinforce key points and scientific terminology.
- Students interviewed were generally positive about science which they enjoy.
- Students know their individual targets and the levels they are working at.
- The marking of pupils' work is generally supportive and often includes comments to help students improve their work.

Quality of the curriculum

The quality of the curriculum in science is good.

- There is a range of courses at Key Stage 4 that meets the needs of most students. Courses include GCSEs in science and additional science, and a first certificate course.
- Physics, chemistry and biology, are not offered as separate GCSEs.
- There are some opportunities for independent investigative work but there is scope for increasing this.
- In Key Stage 3 the science curriculum is being developed through links with the 'Opening Minds' curriculum, moving to a more skills based approach.
- There are some appropriate enrichment activities in science, including visits and themed events.
- In the sixth form GCE AS and A levels are offered in physics, chemistry, biology and applied science. Applied science offers a progression route in science for those who have studied the first certificate course at Key Stage 4.

Leadership and management

Leadership and management are good.

- Leadership and management demonstrate a clear focus on continuous improvement.
- Strategies to raise achievement in science at Key Stage 4 have been very successful.
- There is effective staff teamwork and sharing of teaching and learning ideas.
- The tracking of progress is very well managed, especially at Key Stage 4.
- The school's planned new building includes new laboratories which will replace older, slightly dilapidated laboratories.
- Departmental documentation is thorough and comprehensive.
- Day-to-day operational management is effective.

Areas for improvement, which we discussed, included:

- considering how the entitlement to triple science (physics, chemistry and biology) at Key Stage 4 might be met
- further developing teaching and learning strategies to raise achievement in the sixth form
- developing opportunities for more independent investigative 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

Ruth James Her Majesty's Inspector