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18 October 2007

Mrs L Hewlett Parker
Headteacher
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Dear Mrs Hewlett Parker

Ofsted survey inspection programme – Science

Thank you for your hospitality and co-operation, and that of your staff, during my visit on Tuesday and Wednesday, 16-17 October, 2007 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 yourself, the assistant headteacher with oversight for the school's specialist status subjects, the heads of science for Key Stages 3, and 4 and 5, and with pupils from Years 7 to 10 and with students in the 6th Form; informal discussions with teachers; scrutiny of relevant documentation; and observation of ten part lessons.

The overall effectiveness of science was judged to be satisfactory.

Achievement and standards

Achievement in science is satisfactory and good in the Sixth Form.

- Standards are above local authority and national averages at the end of Key Stage 3. GCSE results in science for 2007 are in the average band.
- Pupils make broadly satisfactory progress in lessons. Higher attaining pupils (in the upper sets) and pupils with special educational needs make the best progress. Pupils in the middle and lower sets make satisfactory progress overall, but they could do better.
- The science department has arrested the slow decline in standards. Performance at Key Stage 3 in 2007 was at its highest level in recent years. GCSE results in 2007 were an improvement on those in 2006.

- Students make good progress in science in the 6th Form. They have mature attitudes to learning and apply themselves well to their work.
- Pupils' personal development is satisfactory. For most pupils in most science lessons, it is good. However, a minority of pupils in middle and lower sets have poor attitudes to learning. They sometimes waste the time of themselves, teachers and other pupils.

Quality of teaching and learning of science

The quality of teaching and learning in science is satisfactory.

- Teachers' subject knowledge is good in physics, chemistry and biology. Teachers make good use of interactive whiteboards in lessons to make teaching more interesting and to drive home teaching points. They pay great attention to safety in the laboratories. Relationships between teachers and pupils/students are often good.
- Of the lessons seen, broadly, half were of good quality and half were satisfactory. In good lessons, pupils were quickly set to practical tasks, something the pupils valued highly. They were asked open questions that made them think. In less successful lessons, too much time was spent on worksheets that were unchallenging. In these lessons questioning was 'closed' and did not require pupils to give more than one-word answers.
- Occasionally, learning was unsatisfactory. This only occurred when a minority of pupils showed a lack of interest and of respect. Teachers dealt firmly with such situations, but the distraction and time taken meant that the majority of pupils did not learn as much as they ought.

Quality of the curriculum

The quality of the science curriculum is satisfactory. Good features are developing.

- The school has introduced 21st Century Science into Key Stage 4. The school aims to provide a more radical approach to science that will make the subject more relevant to pupils. Early reactions from pupils are mixed. For example, higher attaining pupils in Year 10 were unimpressed, but pupils in the middle sets appreciate the opportunities to discuss science and its impact on life and the environment.
- The school's 6th Form is federated with that of another local secondary school. Sir John Nelthorpe's staff provide the bulk of the curriculum in science for the two schools. Courses are proving popular; numbers of students taking science at AS and A level are increasing.
- Although at present, the school offers double award science, it is preparing to offer three separate sciences, and is well placed to do so.
- As part of its specialised status for science, good links have been developed with the main associated primary schools, and special events, including 'science weeks', organised to promote interest in science more generally.

Leadership and management of science

The leadership and management of science are satisfactory. There is good capacity to improve.

- The leadership team is relatively new. All key post holders have been appointed within the last 18 months, some have only recently taken up their posts. The leadership team is highly motivated to secure improvement and meet challenging targets. It has made a good start.
- The emphasis of the new leadership and management to date has been the establishment of a rigorous tracking and target system for pupils. This is now in use. The progress of each pupil and student is monitored regularly and intervention arranged for those whose progress appears to be slower than expected.
- Assessment of pupils' work is an area identified for improvement, including the greater involvement of pupils in evaluating their progress. The leadership team has made good use of the local authority's science consultant to develop this.
- The monitoring of teaching and learning in the department is not as effective as it needs to be. Some teaching and learning is more effective than others and teaching in the middle and lower sets poses particular challenges. These issues are not currently being addressed with sufficient urgency.
- Although science results in 2007 improved over those in 2006, they did not represent as strong an improvement as was seen, for example, in results for English and mathematics. However, the science department suffered from the absence of key teaching staff during 2006-07 that goes some way to explaining the modest improvement.

Inclusion

Inclusion in science is satisfactory.

- Most pupils make at least satisfactory progress. Higher attaining pupils, those with special educational needs and 6th formers make good progress.
- The school has identified middle attaining pupils in the main school as the group that achieves less well. The inspection supports this view, since it was in the middle to lower sets where progress was slower and, occasionally, unsatisfactory.

Areas for improvement, which we discussed, included:

- improving teaching and learning to consistently good and better quality by more effective questioning and the use of more varied teaching and learning strategies
- raising standards for pupils in middle and lower sets by managing more effectively the attitudes and behaviour of disaffected pupils
- maintaining a review of curriculum options and developments to ensure the needs of all pupils are fully met.

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 your Learning and Skills Council and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Brian Padgett
Her Majesty's Inspector