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Mr T Griffiths Headteacher Kettlethorpe High School Kettlethorpe Hall Drive Standbridge Lane Sandal WF2 7EL

Dear Mr Griffiths

Ofsted 2010-11 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of the staff and pupils, during my visit on 15 and 16 February 2011 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 pupils; scrutiny of relevant documentation; analysis of pupils' work; and observation of 11 lessons.

The overall effectiveness of science is satisfactory.

Achievement in science

Achievement in science is satisfactory.

- Pupils' attainment at the end of Key Stage 4 has risen gradually over the last three years and is broadly in line with the national average.
- Pupils' progress relative to their starting points is satisfactory.
- Data relating to the attainment of pupils currently in Year 11, including those following a newly introduced GCSE equivalent vocational course, indicate that attainment is set to rise further in 2011.
- Pupils typically demonstrate positive attitudes to learning and a willingness to be actively engaged in lessons. They enjoy practical investigations and are keen to contribute during class discussions or group activities, for example when required to 'micro-teach' their peers.

■ Pupils in Key Stage 4 have a secure understanding of their current attainment and what they need to do to ensure that they meet or exceed their targets. During Key Stage 3, this level of pupil understanding is less widespread.

Quality of teaching in science

The quality of teaching in science is satisfactory.

- The quality of teaching observed was variable; it was satisfactory in the majority of lessons.
- Teachers plan in detail giving careful attention to the development of pupils' scientific knowledge and understanding, their skills of scientific enquiry and their ability to work as independent learners.
- Good teaching was typified by challenging activities that supported the intended learning well; brisk pace; high expectations of what pupils could achieve; the effective use of questioning to check pupils' understanding; and additional one-to-one support for individuals and groups that accelerated learning.
- Less effective teaching commonly featured activities that were not well designed to meet the intended learning outcomes or closely matched to the needs of pupils in the group.
- Teachers provide pupils with regular opportunities to reflect on their learning. This helps to raise pupils' awareness of what they have achieved.
- The effectiveness of written feedback in improving learning is variable. In the sample of work scrutinised, most pupils rarely responded to teachers' comments and, consequently, there was no improvement over time in the quality of their work.
- Teachers' confidence in the use of information and communication technology to enhance or support learning is variable, but developing, as a result of whole-school training and peer support.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- The Key Stage 3 scheme of work places a strong emphasis on developing pupils' understanding of scientific enquiry alongside their scientific knowledge by setting learning in a broad range of interesting and relevant contexts.
- The Key Stage 4 curriculum has been developed effectively and meets the needs and aspirations of pupils well. Three separate science GCSEs are an increasingly popular choice at Key Stage 4, reflecting pupils' enjoyment of science.
- At both key stages there is a clear focus on ensuring that pupils develop the skills and personal qualities needed to be confident, independent learners with a good awareness of the importance, implications and limitations of science.

- An effective partnership with the technology department has extended the experiences of pupils attending the weekly science club. Good use is also made of the outdoor learning environment during the teaching of ecology-based units of work and for the popular gardening club.
- Further development is required to ensure that all pupils have the opportunity to benefit from curriculum enrichment experiences.

Effectiveness of leadership and management in science

Leadership and management in science are satisfactory.

- Pupils recognise and appreciate the strong commitment of the science team to supporting their progress.
- Leaders in science are robust in their monitoring of pupils' progress during Key Stage 4 and have made effective use of a range of strategies to help those identified as underachieving.
- Monitoring of provision is regular, but evaluation has not precisely identified aspects of teaching that require improvement. Consequently, the quality of teaching is inconsistent across the department with too little that is good.
- Effective use has been made of professional development opportunities to improve teachers' subject knowledge.

Areas for improvement, which we discussed, include:

- improving the evaluation of provision to pinpoint areas for development more sharply
- taking more systematic and effective action to improve teaching quality to match the best practice in the department.

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

As I 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. Except in the case of academies, a copy of this letter is also being sent to your local authority.

Yours sincerely

Katrina Gueli Her Majesty's Inspector