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Mrs M Dibben Headteacher The Grange School Avocet Way Banbury Oxfordshire OX16 9YA

Dear Mrs Dibben

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 12 July 2010 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 four lessons.

The overall effectiveness of science is good.

Achievement in science

Achievement in science is good.

- Children make good progress in the Early Years Foundation Stage. Their knowledge and understanding of the world around them vary from year to year but are generally slightly above the level expected for their age by the time they enter Year 1.
- Attainment at the end of Year 6 has been significantly above average for the past two years and above that seen in English and mathematics. Largely as a result of the ability of the cohort on entry to the school, Year 6 attainment has fallen this summer to national average levels. However, attainment is higher in the younger year groups in the school.
- Pupils make good progress in science between Year 1 and Year 6.

- Pupils enjoy their learning and speak with enthusiasm about the practical work that they do, particularly in using science to explore and make sense of their environment. As a result, they develop a good understanding of scientific method and a strong grasp of scientific vocabulary. However, the quality of pupils' learning in lessons varies according to the degree of challenge offered, particularly for the more able.
- Pupils behave well in science lessons. Their skills of paired and team working are developing very well.

Quality of teaching in science

The quality of teaching in science is good.

- All the lessons observed had a clear focus on developing pupils' sense of curiosity and enquiry and provided them with opportunities to be actively involved in their learning.
- In the best lessons, pupils are encouraged to devise their own questions and then design their own investigations to test out their ideas.
- Classes are managed skilfully. Resources are well prepared and used to maintain a good pace in lessons. Safe routines and procedures are carefully followed by children during practical activities.
- Teachers use questioning effectively to explore and develop pupils' understanding of scientific ideas.
- Teaching assistants support and challenge pupils with special educational needs and/or disabilities well.
- The tasks set for more able pupils are not always sufficiently challenging.
- Pupils' work is marked regularly. Written comments and questions are helpful in developing pupils' learning, particularly when teachers give pupils time to respond to the points raised.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- The curriculum has been effectively developed over the past three years to ensure that pupils' knowledge and understanding of science are delivered through topics which are relevant to them.
- Environmental issues form the core of a number of topics studied by pupils. In particular, they are actively involved in a range of ecologically based activities through the 'eco-workshops' and the 'eco-council.'
- Curriculum planning has a clear focus on developing pupils' skills of scientific enquiry. Medium-term plans also link effectively with learning in other subjects particularly, literacy, numeracy and information and communication technology.
- Medium-term planning does not consistently identify how activities can be adapted to meet the needs of more able pupils.

Effectiveness of leadership and management in science

The effectiveness of the leadership and management in science is good.

- Leaders have established a positive ethos for learning in science. There is a clear expectation that pupils should enjoy science and achieve well.
- Changes to the curriculum have been well led and are having a positive impact on pupils' achievement in science.
- The science leader has an accurate understanding of the strengths and weaknesses in subject provision and pupils' outcomes. A good plan is in place to tackle areas for improvement.
- Although pupils are assessed regularly in science, this information is only collected centrally once a year. The science leader has rightly identified the need to collect this information more frequently so that underachievers can be identified quickly and provided with support.

Areas for improvement, which we discussed, include:

- ensuring that all lessons contain suitably challenging tasks and activities for more able pupils
- developing an electronic central tracking system so that assessments can be collected frequently, stored and used to identify underachievers quickly.

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 sent to your local authority and will be published on the Ofsted website under the URN for your school. It will also be available to the team for your next institutional inspection.

Yours sincerely

Peter Sanderson Her Majesty's Inspector