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10 December 2012

Mr P Sanderson Headteacher Ladygrove Primary School Old Office Road Dawley Telford Shropshire TF4 2LF

Dear Mr Sanderson

Ofsted 2012–13 subject survey inspection programme: Science

Thank you for your hospitality and cooperation, and that of your staff and pupils, during my visit on 29 November 2012 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, governors and pupils; scrutiny of relevant documentation; analysis of pupils' work; and observation of five lessons.

The overall effectiveness of science is good.

Achievement in science

Achievement in science is good.

- In lessons, and over the course of time, pupils are making good science progress. Teaching assistants receive good guidance from class teachers and are therefore well prepared to support disabled pupils and those with special educational needs. These pupils are also achieving well.
- School records showed a dip in the teacher assessments of scientific enquiry for Year 6 pupils in 2011 and 2012. This contradicts the good quality of science work seen throughout the school at this visit.
- Pupils know how to improve their science work, because they receive helpful suggestions during lessons and good written advice in their books.
- Pupils are particularly good at organising practical work for themselves. This reflects the high frequency and quality of practical activities they

carry out. Older pupils have very well honed skills in planning and carrying out investigations.

Quality of teaching in science

The quality of teaching in science is good.

- Almost all the lessons seen during my visit were good and none had any significant weakness. All demonstrate the strong school focus on conducting practical science.
- In all lessons seen, teachers waste no time in setting up the practical activities, so pupils quickly start their investigations. These activities are well matched to the abilities of pupils, including good support for literacy. The activities capture pupil's interests well.
- Sometimes, the activity does not have a clear link to an underpinning key science concept. This occurs unintentionally, as teachers try to set an activity into a wider context, but in doing so make the task too elaborate. This can lead to missed opportunities to deepen subject knowledge and understanding, although does not hamper practical skill development.
- Pupils enjoy the many opportunities they have to explore their physical environment, for example in a Year 2 class on freezing, and solids and liquids, investigating irreversible/reversible changes.

Quality of the curriculum in science

The quality of the curriculum in science is good.

- Pupils participate in a wide range of additional trips and visits. Specialist scientists and engineers regularly visit the school to talk about and demonstrate scientific applications. Many of these visits link to the school's sustainable development programme which includes on-site solar and wind generation. A forest school helps pupils relate their studies to the outdoor environment, on a weekly basis.
- Teachers design deliberate links to literacy and numeracy into investigations. This is leading to very good evaluations of experiments supported by data, and this skill begins in Key Stage 1. Pupils are therefore confident users of evidence in support of their conclusions.
- Pupils contribute to lesson and curriculum planning by raising questions of their own, and therefore the chance to find their own answers. Teachers plan science topics in phase teams, using their knowledge of pupil prior learning to ensure effective progress.

Effectiveness of leadership in, and management of, science

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

A recently appointed coordinator is leading science lesson planning, and accessing professional development training for herself and colleagues. The local authority runs science coordinator meetings every term, ensuring schools stay up to date with developments in science, and in safety management changes.

- The school's ethos is grounded in sustainable development, and leaders use every opportunity to connect this with science teaching. This is helping to generate an imaginative approach to lessons, and allows teachers to relate lessons to real environmental factors.
- School leaders have identified previous shortfalls in assessing pupil's progress in scientific enquiry. They have changed assessment practice so that it now aligns with the assessing pupils progress (APP) profiles. This term, teachers are also assessing science subject knowledge using a similar system.
- Physical resources are well organised and of good quality, and sufficient to maintain high-quality practical work across all years.

Areas for improvement, which we discussed, include:

- ensuring the subject content of lessons have clear links to the underpinning key science concepts, making sure pupils know this
- ensuring accurate moderation of teacher assessment of pupil's scientific enquiry skills through partnership arrangement with neighbouring schools.

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

As 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. A copy of this letter is also being sent to your local authority.

Yours sincerely

Brian Cartwright Her Majesty's Inspector