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Mrs F Swain Headteacher Manor Primary School 110 Ashampstead Road Reading Berkshire RG30 3LJ

Dear Mrs Swain

### Ofsted 2011–12 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of the staff and pupils, during my visit on 4 November 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 five lessons.

The overall effectiveness of science is good.

#### Achievement in science

Achievement in science is good.

- From below average attainment on entry to the school, all pupils make good progress and are demonstrating at least average attainment in science. Progress for pupils with special educational needs and/or disabilities is also good and they are fully included in science lessons irrespective of their needs.
- Boys in particular do very well, which the school correctly attributes to the motivational approach to the curriculum. Pupils known to be eligible for free school meals are also progressing very well and closing the gap on their peers.
- Pupils know how well they are doing and also what they should do to further improve, although not every pupil is actually responding to the very clear marking advice.

Pupils enjoy science lessons and say that it is because they have a chance to find out about things they want to know, and also they enjoy the 'scrapbooks' they compose to summarise their learning some time after completing the topic.

# Quality of teaching in science

The quality of teaching in science is good.

- Lesson plans are designed for different starting points for different pupils; pupils normally work in groups related to their science ability.
- There is good-quality science-related marking in all year groups, supported by good primary science subject knowledge that spots and corrects errors well. Pupils do not consistently respond to the suggestions for improvements from their teachers.
- The best lessons use a very wide range of resources including very good use of information and communication technology (ICT), practical science equipment and high-quality visual resources such as real X-Ray photographs.
- Where teaching was satisfactory, the pupils' perception of the science experiment was occasionally at odds with what it was supposed to be, and they were not convinced by the explanation initially provided by the teacher.
- The school has responded effectively to its recent inspection by increasing opportunities for pupils to work independently, and to give challenging tasks that increase pupils' resilience and helps them stick at the problem. Most lessons have very short introductions that get pupils working on their own, or in groups, from the outset. Teachers and support assistants then circulate to ensure that pupils are making good progress, intervening only when necessary to help overcome any individual difficulty. Pupils therefore maximise the time they spend thinking, discussing, trying out their own solutions, and collaboratively working to achieve the lesson's objectives.

### Quality of the curriculum in science

The quality of the curriculum in science is outstanding.

- Topics begin by pupils 'raising questions' for themselves, which, with their teacher's help, they are expected to systematically follow-up and research. From the outset, therefore, pupils are engaged in their work, which they see as interesting and relevant, and take a pride in its completion.
- Some weeks after completing the science topic, pupils then create a 'scrapbook' that summarises their knowledge and understanding of the topic. This is done as part of literacy work because the primary purpose is for pupils to improve their speaking and presentational skills. However, this also very effectively reinforces and revises their science knowledge. Pupils say these 'scrapbooks' are enjoyable and motivating to produce.
- ICT is used effectively and routinely by teachers to stimulate thinking and illustrate ideas in lessons, and by pupils for research and organisation of

their scrapbooks. For example, a Year 3/4 lesson on skeletons was supported by a multimedia clip showing internal bones moving as the animal ran, and a lesson on sound was able to demonstrate the reduction in amplitude with distance by using a computer-based sound level system.

# Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is good.

- The recently appointed subject coordinator has received good support from senior leaders in the school.
- Pupils' progress, and the quality of science teaching and learning, is routinely monitored by senior managers; records show that schemes of work, pupils' work, and lesson observations provide a robust evidence base to permit evaluation and further development of science.
- Professional development in science is limited to occasional networking meetings with teachers from other schools; the school is aware of science learning centres but has not yet participated in them. As yet, there are no science-specific links with local secondary schools.

# Areas for improvement, which we discussed, include:

- ensuring that pupils have opportunities to respond to the high-quality written feedback from their teachers
- ensuring that subject-specific professional development opportunities are routinely available to classroom teachers by expanding existing links with local primary and secondary providers, and accessing regional training and development opportunities where appropriate.

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