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Ms J Sanders Headteacher The Whartons Primary School The Whartons Otley West Yorkshire LS21 2BS

Dear Ms Sanders

Ofsted 2011–12 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of your staff and pupils, during my visit on 28 February 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 and pupils; scrutiny of relevant documentation; analysis of pupils' work; and observation of six lessons.

The overall effectiveness of science is satisfactory.

Achievement in science

Achievement in science is satisfactory.

- Virtually all pupils are successful in attaining the expected Level 4 by the end of Key Stage 2; the proportion reaching Level 5 is less than expected.
- Some pupils make good progress and achieve well. However, during Key Stage 2, a significant number of pupils do not achieve as well as they should. This is particularly so for more able pupils.
- Pupils really enjoy their science in school because they get regular opportunities to find out about science in a practical way. The wide variety of trips, visitors and enrichment activities that they experience also makes a strong contribution to their enjoyment of science.
- Pupils show a willingness to share their ideas and can successfully apply their prior knowledge to offer solutions and explanations to scientific

- questions. However, some approaches to teaching limit opportunities for pupils to make decisions about how they will explore a scientific idea.
- Pupils do not know how well they are doing in science. They do not have targets and written feedback does not consistently provide guidance on what they have achieved and what they need to do to improve.

Quality of teaching in science

The quality of teaching in science is satisfactory.

- Teachers are enthusiastic about their science teaching and plan activities that effectively promote pupils' enjoyment and engagement in lessons.
- Good teaching, such as that observed in Key Stage 1, featured high expectations and challenge for all groups of pupils and very effective questioning by both teachers and teaching assistants that explored pupils' understanding and successfully moved their learning on.
- Relationships between adults and pupils are good, creating a positive climate for learning in all classrooms. Additional adults in lessons provide effective support for pupils with special educational needs.
- Most planning is not well matched to needs of pupils of different abilities, particularly for higher-attaining pupils. Often, the academic demand of the planned work does not match pupils' prior attainment, so does not challenge them consistently enough to ensure good or better progress.
- End of topic assessments simply measure attainment for each pupil as being 'below, expected or better than' age-related expectations. But no evaluation of the progress this represents for a particular pupil is undertaken, so underperformance is not being effectively identified.
- Opportunities for pupils to assess their own work or that of their peers are limited.

Quality of the curriculum in science

The quality of the curriculum in science is satisfactory.

- The curriculum provides pupils with a broad and enjoyable science experience with an appropriate balance between the development of knowledge, understanding and skills within topics at Key Stages 1 and 2.
- Provision in Early Years Foundation Stage ensures that children have a good variety of adult-led and child-initiated activities in both the indoor and outdoor learning environments.
- The curriculum is planned to provide opportunities for key concepts to be revisited and extended. However, medium-term plans for the curriculum do not include links to national curriculum levels to ensure that learning is pitched at the right level for every pupil to make good progress.
- Cross-curricular links with subjects including English, mathematics and art promote pupils' engagement in science but their impact on their improving achievement in science is limited.

- The school grounds are used as an excellent resource to support learning, particularly lower down the school. The pond, a wildlife garden, school chickens and allotment beds provide pupils with valuable hands-on experiences of living things and the environment, while developing their understanding of sustainability and appreciation of the world around them.
- Pupils have a good range of opportunities to develop their information and communication technology skills in science, by using it as a tool for research, presentation of information, revision or data-handling.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is satisfactory.

- School leaders ensure science retains its significant place in the curriculum and recognise its importance as a prominent, practical subject. Improving provision and achievement in science is not a current whole-school priority.
- Monitoring and evaluation by the subject leader has provided a useful overview of the curriculum provision and identified the development of assessment in science throughout the school as an area for improvement.
- The monitoring and evaluation of teaching quality and the tracking of pupils' performance in science is not frequent, systematic or rigorous enough to pinpoint areas for development accurately.
- The use of challenging targets to raise attainment and improve pupils' progress in science is at a very early stage of development.
- Professional development to improve the skills of the subject leader or the quality of teaching across the school has been limited.
- Appropriate care is taken to manage risk associated with the extensive out-of-classroom learning opportunities and practical tasks in lessons.

Areas for improvement, which we discussed, include:

- ensuring that all planning is informed by detailed assessments of pupils' current level of attainment and focuses on securing their good progress towards challenging targets
- using the findings on monitoring and evaluation to develop teaching so its quality consistently matches the current best practice in the school.

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

Katrina Gueli Her Majesty's Inspector