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Ms C Cunnington Headteacher Loudwater Combined School School Way High Wycombe Buckinghamshire HP11 1JJ

Dear Ms Cunnington

Ofsted 2012–13 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 5 July 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, including joint observations with the headteacher.

The overall effectiveness of science is satisfactory.

Achievement in science

Achievement in science is satisfactory.

- Pupils begin school with age-related skills that are broadly in line with expectations nationally. School records indicate that all pupils, including disabled pupils and those with special educational needs, make expected progress in science across Key Stages 1 and 2.
- Pupils enjoy science lessons and demonstrate positive attitudes to learning. They tackle activities with enthusiasm and the most able demonstrate resilience when challenged. Pupils in Key Stage 2 appreciate opportunities to study science over an extended time so that they can develop their knowledge in more depth.
- Pupils' take pride in their written work and it is of good quality. Good use is made of science to develop literacy skills, although opportunities are missed to develop numeracy through science work, especially in Key Stage 2.

Quality of teaching in science

The quality of teaching in science is satisfactory.

- Teachers make good use of the integrated curriculum to plan creative and engaging activities which are based on relevant contexts. Good strategies for differentiation ensure that tasks meet the needs of pupils. Learning is underpinned by good relationships between pupils and adults.
- While the quality of teaching in the Early Years Foundation Stage and Key Stage 1 is good, it is satisfactory in Key Stage 2. This is because lesson objectives and success criteria are do not lead to sufficiently clear sequences of learning in science lessons. While planning skills are developed well during science investigations, opportunities to promote pupils' skills in numeracy, analysis and evaluation are not well developed.
- Marking is consistent and thorough, although it does not always make pupils sufficiently aware of the next steps they need to take to improve their learning.

Quality of the curriculum in science

The quality of the curriculum in science is satisfactory.

- The integrated curriculum successfully promotes creative and imaginative collaborative planning. This has been especially successful in the Early Years Foundation Stage and Key Stage 1. In Key Stage 2 the integrated curriculum does not always lead to sufficiently clear lesson outcomes and success criteria and does not ensure full coverage of the National Curriculum.
- A good range of extra-curricular activities is provided to support learning in science, including clubs, trips and visits. Science also makes a good contribution to the development of pupils' spiritual, moral, social and cultural development. For example, the recent Living Eggs project, during which hens' eggs were incubated, hatched and the chickens reared on the school site, encouraged pupils to consider the development of living things and develop a greater responsibility for the welfare of animals.

Effectiveness of leadership and management in science

The effectiveness of leadership and management in science is good.

- Accurate self-evaluation has been used to inform future planning to raise the quality of science education at the school through improved provision and good and outstanding teaching. Actions taken have already led to improvements in the quality of teaching and plans are in place to increase opportunities for joint planning and ensure that teachers have greater access to appropriate science-specific professional development.
- Arrangements for tracking pupils' progress in science are robust. Effective intervention ensures that all pupil groups make at least expected or better progress, resulting in increasing achievement in science.

Physical resources for science are well managed and the school provides a bright and safe environment for learning.

Areas for improvement, which we discussed, include:

- increasing the proportion of good and outstanding science teaching through planning lessons based on precise lesson objectives and success criteria to ensure clear sequences of learning, especially in Key Stage 2
- further developing the integrated curriculum to ensure full coverage of the National Curriculum and greater depth of learning in science, including through increased opportunities to develop skills in numeracy, analysis and evaluation
- ensuring that teachers have appropriate access to science-specific professional development.

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

John Meinke Additional Inspector