Aviation House 125 Kingsway London WC2B 6SE

T 08456 404040 F 020 7421 6855 enquiries@ofsted.gov.uk www.ofsted.gov.uk



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Ms C Chrystal Headteacher Bromley Heath Infant School Quakers Road Downend Bristol BS16 6NJ

Dear Ms Chrystal

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of your staff, during my visit on 11 January 2010 to look at work in mathematics.

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.

The evidence used to inform the judgements included interviews with staff and pupils, scrutiny of relevant documentation, analysis of pupils' work and observation of parts of six lessons.

The overall effectiveness of mathematics is good.

Achievement in mathematics

Achievement in mathematics is good.

- When children start school, their skills across the different areas of problem-solving, number and reasoning (PSRN) are very varied. They generally have good knowledge of number, but limited understanding of how to use it for calculation and working out simple practical problems. The curriculum is adjusted to take account of this. As a result, children make good progress through the Reception Year and their attainment in all aspects of PSRN is slightly above average by the time they join Year 1.
- Pupils continue to make good progress in Years 1 and 2 and standards at the end of Year 2 are consistently above the national average. This is because of the school's success in ensuring that almost all pupils attain at least the average level (2b). The school has recognised that there is scope to increase the rate of progress for more able pupils so that a greater

- proportion reaches Level 3. There is a particular focus on improving the performance of girls at this level because boys' attainment was better than that of girls in 2009.
- Pupils develop a particularly good understanding of number and are able to calculate using a variety of methods. They are not always aware of the most efficient ways of working, for example, by counting on from the larger number, rather than starting again with one, when adding two groups of objects together.
- Pupils are enthusiastic about mathematics and enjoy number work in particular. They collaborate well in discussion with their 'talk partners' and also when they work in pairs and small groups on practical tasks. They are keen to answer teachers' questions in lessons and to contribute their ideas on ways of tackling simple problems.

Quality of teaching of mathematics

The quality of teaching of mathematics is good.

- Lessons are structured well, with an oral or mental starter, followed by the main activity and a plenary to review learning. Teachers plan a range of tasks to cater for different levels of ability. Expectations are generally high, but occasionally there could be a greater level of challenge for more able pupils.
- In introductory sessions, teachers make good use of resources to engage pupils' interest and to explain new concepts and demonstrate ways of working. They use a range of questioning techniques to cater for different levels of understanding, but sometimes miss opportunities to model efficient ways of working. Introductions tend to be over-long and, while there is no obvious off-task behaviour, some pupils are passive while individuals answer questions orally or through demonstration on the interactive whiteboard.
- Teaching assistants are deployed very effectively to enhance mathematics provision. Sharing their time across two classes in the same year group brings consistency in the quality of support offered. They work well with individuals and small groups throughout each lesson and play a valuable role in observing pupils' responses and any possible misconceptions. This means that teaching can be adjusted quickly to revisit any areas that some pupils have not grasped.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is good.

■ The curriculum is based on the primary framework which teachers adapt and develop to provide a range of imaginative activities appropriate to the pupils' starting points. There is a strong emphasis on practical activities that enable pupils to develop their understanding in mathematics without having to record too much. This is of particular benefit to pupils with

special educational needs and/or disabilities. Pupils begin to engage with a variety of simple problems, such as calculating change when shopping. However, there are few open-ended tasks that allow more able pupils to apply their good understanding of number in different contexts.

- The curriculum for the Early Years Foundation Stage places a strong emphasis on the development of mathematical language to boost children's skills in calculation. Staff take every opportunity to use appropriate vocabulary in directed and child-initiated tasks. Stories are used well as a stimulus for learning. This was evident in a whole-class session where the teacher, dressed as a witch, encouraged the children to combine two groups of objects in a variety of ways to make a specific number so that she could get her spell right.
- Information and communication technology (ICT) is used well to support teaching and for a variety of practice tasks during lessons. Use by pupils for other purposes, such as collating and presenting data, is limited. This is in part because of a lengthy period of technical difficulties that left the school without ICT resources for the first part of the academic year.

Effectiveness of leadership and management of mathematics

The effectiveness of the leadership and management of mathematics is good.

- Good use is made of analysis of pupils' performance in tests and assessments to evaluate strengths in provision and areas for development. This has led to the school identifying scope to close the gap between the proportions of boys and girls attaining Level 3 at the end of Year 2. Adjustments are made to the curriculum as a result of evaluation. There is a current focus, for example, on improving pupils' understanding of aspects of number such as 'rounding up or down'.
- The progress of individual pupils is monitored and reviewed carefully so that those who are not making expected gains are picked up at an early stage. Groups of teachers are regularly involved in moderation activities which help to support the judgements that they make on pupils' attainment.
- The subject leader's expertise is used well to support colleagues in a variety of ways. She works alongside teachers in classrooms, advises on planning and uses professional development opportunities to suggest adaptations to curriculum provision. Her involvement in lesson observations has been limited over the past year, in part because of staffing issues and her role as acting deputy headteacher, but this is due to be resolved next term.

Areas for improvement, which we discussed, include:

 ensuring that introductory sessions in lessons are short and sharply focused with a strong emphasis on exploring mathematical processes such as efficient methods of calculation extending opportunities for more able pupils to engage with open-ended tasks so that they use their good knowledge of number to explore a variety of methods of solving problems.

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

As explained in our previous letter, a copy of this letter will be sent to your local authority and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Shirley Billington Additional Inspector