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Ms V Roberts
Headteacher
Park Brow Community Primary School
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Dear Ms Roberts

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 8 July 2009 to look at work in mathematics.

As outlined in our initial letter, as well as looking at key areas of the subject, the visit had a particular focus on the effectiveness of the school's approaches to improving the quality of teaching and learning 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. All feedback letters will be published on the Ofsted website at the end of each half-term.

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

The overall effectiveness of the subject, mathematics, was judged to be good.

Achievement and standards

Achievement in mathematics is good. Standards are just below average.

- According to the school's records, children's mathematical development on entering Nursery is well below that expected for their age. By the end of Reception, their knowledge and skills are still below those expected for their age but children make good progress in relation to their starting points, particularly in number.
- Pupils make satisfactory progress in Key Stage 1. Standards are below average in Year 2. In the past, more able pupils have not made as much progress as other groups but the challenge is being increased to enable them to reach higher levels.

- All groups of pupils make equally good progress through Key Stage 2. Standards are just below average by the end of Year 6 and have been so for five years.
- Pupils' achievement in number, calculation, shape and data handling is stronger than their progress in using and applying mathematics. The school is working effectively to improve pupils' problem-solving skills.
- Tracking progress towards challenging targets, which often results in pupils exceeding them, makes a vital contribution to pupils' good overall achievement.
- Pupils have good attitudes to learning mathematics. They behave well in lessons, apply themselves, persevere and present their work carefully.

## Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is satisfactory with good features.

- The planning of lessons has been improved to ensure that pupils' different learning needs are well catered for and the activities provided are challenging.
- Colourful and informative mathematics displays in every classroom encourage pupils to work independently.
- Teachers make good use of interactive white boards to sharpen pupils' mental mathematics skills and to help them to understand mathematical ideas, such as angular measure. However, insufficient use is made of classroom computers to encourage pupils to practise their skills and consolidate their understanding.
- Assessment is used very effectively to measure what pupils have learned over a
  period of time. However, assessment is not used sufficiently in some lessons to
  pinpoint and correct pupils' misconceptions. Where teaching is most successful,
  teachers use strategies to check on pupils' progress, for instance through asking
  pupils to hold up their answers on mini-whiteboards. This enables the teacher to
  know when to halt the lesson to reinforce understanding or move on swiftly
  when understanding is secure.
- Teachers set challenging targets to help pupils to achieve their goals. Although errors in pupils' work are identified and corrected, pointers for improvement are often omitted when their work is marked.

## Quality of the mathematics curriculum

The quality of the mathematics curriculum is good.

- Effective links have been developed with other subjects to ensure that pupils use their mathematical skills in a range of contexts, for example in interpreting data collected in science investigations.
- Pupils' calculation skills are built upon effectively because teachers follow very clear guidance on how they should be taught.
- The curriculum has been improved this year by introducing a wide range of activities designed to develop pupils' skills in problem solving and using and applying mathematics. Pupils enjoy these challenges.
- The mathematics curriculum is very effectively adapted in response to the tracking of pupils' progress. Intervention and booster groups, set up to provide additional support, make a strong contribution to pupils' overall achievement.

## Leadership and management of mathematics

The leadership and management of mathematics are good.

- You and the subject leader form a strong team that is very committed to raising achievement and driving up standards in mathematics.
- Monitoring and evaluating teaching, scrutinising pupils' work, and analysing
  assessments enable leaders to know where the strengths and weaknesses lie.
  Identified weaknesses, for example in pupils' division skills or insufficient
  challenge for more able pupils, are discussed and form the basis for the next
  stage of action planning.
- Leaders have devised imaginative ways of evaluating the views of pupils and parents. The findings are carefully considered and lead to initiatives such as 'Inspire Days' when teachers and families work together.

Subject issue: the effectiveness of the school's approaches to improving the quality of teaching and learning in mathematics

- Leaders check all aspects of teaching, learning and pupils' progress to identify where the quality of teaching needs to be improved, for example in ensuring that pupils are better equipped to solve mathematical problems.
- None of the staff are subject specialists, and therefore the school has made arrangements for teachers and classroom assistants to attend three and five day mathematics courses to improve their subject knowledge.
- The school has developed a useful lesson observation checklist to guide leaders when making judgements about the quality of teaching and learning. However, the checklist does not highlight sufficiently the extent to which teachers check and improve pupils' conceptual understanding.

Areas for improvement, which we discussed, included:

- using assessment purposefully in all lessons to check that all pupils understand and ensure any misconceptions are quickly remedied
- ensuring that when pupils' work is marked, pointers for improvement are consistently provided
- making full use of classroom computers to reinforce and extend pupils' learning of mathematics.

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

Colin Smith Additional Inspector