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Mr S Rowe
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Dear Mr Rowe

Ofsted 2008-09 subject survey inspection programme: mathematics

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 19 March 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 parts of six lessons.

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

Achievement and standards

Achievement in mathematics is outstanding and standards are exceptionally high.

- From a broadly average starting point on entry to school, children make progress at a rapid rate. Standards at the end of the Reception Year are well above average. There has been an improvement in children's skills in calculation, which were not at quite the same high level as those in number and shape, space and measures. This is the result of increased opportunities for children to explore and develop their understanding of mathematical ideas through well planned practical activities.
- Good progress is maintained through Years 1 to 6. The school has a strong track record of performance in national tests where standards have been sustained at an exceptionally high level over several years. The gains that pupils make from Year 3 to Year 6 generally place the school within the top 10% of schools nationally for 'value added'.

- All groups of pupils do well in every aspect of the subject. Pupils have exceptionally good skills in calculation, as was evident in a Year 2 lesson when pupils quickly calculated differences in two-digit numbers as they worked on a series of money problems. Year 6 pupils are confident in applying a range of operations to tackle the brisk 'challenges' that they are given at the start of lessons.

Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is outstanding.

- All lessons are based on a three-part structure so that pupils become familiar with the pattern of a short, sharp warm-up activity, applying, consolidating or making new gains in learning in the main part and then a review session when they reflect on their learning, identifying where they are confident or where there may be gaps in their understanding. There is a notable consistency in the way that classrooms are organised and how displays and resources are used to support pupils' learning.
- Teachers give clear explanations and make good use of interactive whiteboards or practical/hands-on resources such as 'counting sticks' to demonstrate key ideas or to encourage pupils to apply their learning. Questions are used effectively to encourage pupils to explore different methods of tackling a task and use what they have learned to arrive at an answer.
- Experienced teachers are skilled at quickly evaluating pupils' understanding and identifying where there are misconceptions or confusions. Provision is adjusted as a result. In a Year 6 lesson, for example, where more able pupils were very quick to interpret data, a more challenging activity was introduced so that they started work in a small group with a teaching assistant while the teacher continued the main input with the rest of the class.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is good.

- A variety of approaches is used to support teaching and learning. Staff draw on materials from the former/original National Numeracy Strategy and use a variety of schemes and activities planned and prepared in year groups to support work towards key objectives. The new primary Framework is gradually being implemented across the school in order to make best use of the guidance to ensure that high quality provision is maintained.
- Pupils particularly enjoy mathematical activities that, as one explained, 'make things real' such as problems relating to money and journeys. There is a current focus on further strengthening pupils' skills in reasoning and explaining their approaches to problem-solving and investigations. This links well with the whole-school focus on improving skills in speaking and listening. There is strong emphasis on teaching key vocabulary and encouraging pupils to use it accurately.
- Limited use is made of information and communication technology (ICT), in part because of resource issues. Year 6 pupils have had some experience of using spreadsheets and inputting data but do not have regular access to ICT to extend their skills and the level of challenge in areas such as using formulae to model possible outcomes in problem-solving activities.

Leadership and management of mathematics

The leadership and management of mathematics are outstanding.

- Very thorough analysis and evaluation of data are used to evaluate pupils' performance and to identify where provision needs to be fine-tuned to address any weaknesses. Teachers are given clear guidance on areas of focus resulting from the analysis, for example, where 'there is a slight problem with accuracy and pace rather than conceptual understanding' for a particular group of pupils.
- Senior leaders set a clear and unambiguous direction and have high expectations of staff and pupils. Lesson observations are detailed and well focused on the impact that teaching has on pupils' progress. Clear points for improvement are identified and these are followed up where necessary.
- The subject leader is new in post this year but is already making a significant impact in further developing provision. She has led school-based training on specific aspects of mathematics and is supporting teachers within each year group with planning in order to address the issue related to strengthening pupils' skills in reasoning and explanation.
- Flexible use is made of staffing in order to maintain pupils' good progress and quickly address any gaps in their understanding. Teaching assistants are deployed effectively to work with specific groups and they make a significant contribution to high quality lessons. The school has embarked on 'dynamic assessments' that are proving highly successful. Where pupils demonstrate any confusion or lack of confidence in their current work, within the same week they participate in a short, well-focused additional session to revisit key concepts and clarify understanding. This strategy is used with pupils of all abilities so that the level of challenge for more able can be maintained.

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

- There are very clear guidelines for teachers on areas such as the learning environment, use of displays and resources, use of mental and oral starters, layout of pupils' work and expectations of assessment. This leads to impressive consistency in key elements of teaching and learning.
- The school makes excellent use of staff expertise to support further developments in teaching. Much of the in-service training provided is school-based in order to respond to identified needs. Recent training, for example, has been based on an audit that identified the potential to improve teachers' use of open questions and extend pupils' skills in explaining their thinking.
- The school has recently embarked on an interesting initiative to give teachers in the same year group, with the support of the subject leader, the opportunity to plan a lesson with an identified focus on specific pupils. One teacher teaches the lesson while the other observes the targeted pupils' responses and capabilities during the session. This is enabling teachers to reflect on the impact of their teaching and to consider the key question 'how can we teach ... better?'

Areas for improvement, which we discussed, included:

- improving the use of ICT, particularly for pupils in Years 5 and 6, in order to extend further their skills in areas such as handling data and exploring simulations in investigative activities.

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