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26 January 2012

Mrs K Brown Headteacher Pensby Primary School Kentmere Drive Pensby Wirral CH61 5XW

Dear Mrs Brown

## Ofsted 2011–12 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of the staff and pupils, during my visit with Mary Hinds, Additional Inspector, on 23 January 2012 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 without their consent.

The evidence used to inform the judgements included: interviews with staff and four groups of pupils; scrutiny of relevant documentation; analysis of pupils' work; and observation of five lessons and brief visits to three others.

The overall effectiveness of mathematics is good.

#### **Achievement in mathematics**

Achievement in mathematics is good.

- Children join the Nursery with widely varying mathematical skills but overall they are lower than is typical for their age. They make good progress so that by the time they enter Year 1 they have caught up some ground. Attainment at the end of Key Stage 1 remains a little below average. In particular, not enough pupils reach the higher Level 3.
- Attainment by the end of Key Stage 2 has risen markedly during the last three years and is now slightly above average. A particular success in 2011 was the proportion of pupils reaching at least the expected Level 4, which at around 90% exceeded the national figure of 80%. The proportion attaining the higher Level 5 was average. Differences in the performance of girls and boys at each key stage vary from one cohort to the next. For

- instance, more girls than boys attained Level 5 in 2011, reversing the picture for 2010.
- Pupils' progress through Key Stage 2 varies from class to class but is good overall. Pupils who receive free school meals achieve well. The progress of pupils who have special educational needs and/or disabilities improved in 2011 but lags a little behind their classmates.
- Pupils enjoy their mathematics lessons, particularly the practical and problem-solving activities when they are keen to discuss their ideas in pairs and explain their reasoning. Their positive attitudes add considerably to the quality of their learning and progress over time. Scrutiny of pupils' work showed their competence in most aspects of number and in solving problems, although pupils tend to provide answers rather than showing their working. However, progression in fractions and data handling was uneven with some repetition of low-level work. In discussion, some pupils showed a better grasp of underpinning concepts than others.

## Quality of teaching in mathematics

The quality of teaching in mathematics is good.

- Good-quality teaching was observed in each key stage: this provides the core of good practice so essential for improving teaching further. Strengths of the teaching include varied activities that pupils find interesting and meaningful, often with a practical or problem-solving dimension. Time is used well, keeping learning focused without curtailing discussion: reasoning was an important feature of these good lessons and independence encouraged.
- Relationships between adults and pupils and between pupils are positive. Well-established routines create a purposeful ethos. Inconsistencies in the teaching include how well additional adults support and promote learning, especially during whole-class teaching. Skilful use of questioning in some lessons helped to move pupils' thinking on. Some marking of pupils' work was useful but not routinely followed up by pupils.
- Weaker aspects of the teaching include too much talking by the teacher, missed opportunities to monitor learning and intervene or adapt the lesson, the pitch of challenge especially for the more able, and a lack of clarity about on how to promote or deepen conceptual understanding.

### **Quality of the curriculum in mathematics**

The quality of the curriculum in mathematics is satisfactory.

- Teachers' lesson planning is based principally upon the Primary National Strategy framework but is supplemented with many interesting puzzles, problems and practical activities. Additional attention is given to developing pupils' mental arithmetic skills. Samples of pupils' work show that the curriculum has developed well over the last three years.
- While coverage of the mathematical content of the National Curriculum is adequate, the absence of guidance for teachers on approaches that secure

conceptual understanding and progression in key mathematical ideas is hampering stronger progress not only lesson to lesson but also year to year. In some topics, for instance fractions, this is resulting in too much repetition of colouring fractions of shapes and working out simple fractions of quantities and not enough on aspects such as equivalence and more complex fraction calculations. Information and communication technology is underexploited as an aid to understanding mathematics. Online homework is popular with pupils and parents but has the disadvantage of not capturing pupils' working and mathematical presentation.

■ The school's calculation policy provides some guidance for teachers but does not lead into the most efficient methods for the older pupils.

## **Effectiveness of leadership and management in mathematics**

The effectiveness of leadership and management in mathematics is good.

- Improving attainment in mathematics has been a top priority for the school and the success of strategies and development work is evident in the rising trend of Key Stage 2 test results and also in pupils' attitudes to learning and growing confidence in reasoning and problem solving.
- Appropriate management systems and structures have been established. Pupils' attainment and progress are monitored against their targets and pupils in danger of underachieving receive specific support in lessons and some out-of-lesson interventions. Pupils who have dyscalculia receive specialised individual help.
- Monitoring of provision includes lesson observation and scrutiny of planning and pupils' books. However, such monitoring has focused on generic features rather than mathematical detail. This is the next step for leaders in developing teachers' subject expertise and deepening and extending pupils' understanding. Analysis of pupils' tests has allowed weak areas to be identified but this has not been monitored back to the original teaching approaches and how they might be improved in the future.
- The school has encouraged parents to become more involved and knowledgeable about their children's learning in mathematics. Governors show a keen interest in how the subject is improving but should also focus their support and challenge on the mathematical detail.

# Areas for improvement, which we discussed, include:

- ensuring that all pupils make consistently good or better progress, paying particular attention to pupils in Key Stage 1, the more able and those who have special educational needs and/or disabilities
- strengthening the curriculum by:
  - providing guidance for staff on approaches to secure conceptual understanding and promote effective progression in key topics over time
  - focusing on the mathematical detail when monitoring provision and developing teaching expertise.

I hope that these observations are useful as you continue to develop mathematics 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

Jane Jones Her Majesty's Inspector