Aviation House 125 Kingsway London WC2B 6SE T 0300 123 1231 F 020 7421 6855 enquiries@ofsted.gov.uk www.ofsted.gov.uk



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Mrs T Turner Headteacher Bradshaw Primary School Ingham Lane Bradshaw Halifax HX2 9PF

Dear Mrs Turner

Ofsted 2013-14 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of your staff and pupils, during my visit on 20 February 2014 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: discussions with staff and pupils; scrutiny of relevant documentation; analysis of pupils' work; and observation of two part lessons and shorter visits to eight other lessons to look at teaching and learning in mathematics across the school.

The overall effectiveness of mathematics requires improvement.

Achievement in mathematics requires improvement.

- Children enter the Early Years Foundation Stage with mathematical skills and abilities that are in line with those expected for their age. Most start Year 1 having achieved expected outcomes in the Reception classes. However, scrutiny of children's work shows that these assessments are not secure and children have gaps in their understanding.
- Pupils' progress in Key Stage 1 has been slow but is starting to improve, particularly in Year 2. However, more rapid progress is hampered by some weaker teaching which does not build systematically on what pupils have learned and understood.
- Pupils' progress is stronger in Key Stage 2 and, from above average starting points, most achieve at or above expected levels in Year 6. However, pupils' ability to reason and solve mathematical problems is less

well developed and pupils have gaps in their conceptual understanding of some mathematical topics such as fractions and ratios.

Pupils' attitudes to mathematics are positive. Some Year 5 pupils told me they were proud of their improving ability to recall their times tables. They work co-operatively in lessons and are generally supportive of each other.

Teaching in mathematics requires improvement.

- In Reception, children show curiosity and are interested in exploring mathematical ideas but adults too often miss opportunities to develop children's mathematical understanding. For example, three boys were very excited about their topic of spotting birds. They had binoculars in their role-play area and said they were looking for robins. However, because the role-play area had no charts or counting apparatus, they could not count and record how many birds they had seen.
- Most teachers explain mathematical methods clearly so that pupils can carry out the tasks they are set. However, the extent to which teachers plan for and develop pupils' mathematical reasoning and understanding requires improvement. For example, in one lesson the task of working out which bus journey was the cheapest had been very carefully structured. However, this structure meant that more-able pupils were not challenged to decide for themselves how the problem could be tackled.
- Teachers have recently adopted new strategies for explaining methods of calculating with different operations. However, scrutiny of pupils' work shows that they are given many exercises which are repetitive in nature and do not use knowledge of inverse operations to deepen their understanding.
- Teachers' marking of pupils' work is improving. However, not all comments by teachers spot misconceptions or help pupils to make better progress. Where teachers ask pupils to address points they have raised, pupils do not consistently respond to them, so opportunities to make better progress and check understanding are missed.

The curriculum in mathematics requires improvement.

- A strong focus is placed on assessment and testing in the mathematics curriculum. Teachers' planning is based on a scheme that identifies gaps in pupils' understanding of basic skills. However, insufficient guidance is provided for teachers on approaches to teaching that secure pupils' deeper understanding of mathematical concepts.
- Teachers are receiving training to develop their subject knowledge and their understanding of progression in number work. However, this is yet to have a clear impact on the planning of sequences of lessons. For example, teachers' planning currently focuses on addressing gaps in pupils' prior knowledge, which is important, but it does not build step-by-step to ensure pupils acquire a secure understanding of mathematical concepts.

Leadership and management of mathematics require improvement.

- You have an accurate grasp of the strengths and weaknesses in teaching and have commissioned helpful professional development to address gaps in teachers' subject knowledge.
- The leadership of mathematics is currently shared between you and the deputy headteacher. However, you acknowledge that greater capacity and subject specialism is needed to improve the teaching of mathematics further.
- Scrutiny of pupils' work, lesson observation and other monitoring activities give overviews and provide points for improvement, but these need to be more detailed and lead to more precise mathematical feedback to enable teachers to know exactly how to improve their teaching in mathematics.
- The school's development plan focuses on the school's priority to improve the quality of teaching. All teachers have received training this term to support their understanding of mathematics and develop their subject knowledge. It is too soon to assess the impact of this training on pupils' longer-term progress. Observations of teaching show improvements in teaching but it remains variable across the school.

Areas for improvement, which we discussed, include:

- raising achievement throughout the school, in particular for younger pupils, by:
 - improving progression across sequences of lessons and key strands of mathematics, and increasing the focus on problem-solving and investigation
 - developing teachers' subject knowledge to underpin a sharper focus on developing pupils' mathematical understanding and reasoning skills
 - ensuring teachers' marking and feedback consistently identify and address misconceptions, coupled with opportunities for pupils to respond and improve their work
- providing guidance for staff on:
 - teaching approaches that promote conceptual understanding and develop mathematical reasoning
 - securing progression in key mathematical ideas from the Reception to Year 6
- strengthening subject leadership in mathematics by increasing the level of mathematical detail in monitoring activities and feedback to teachers.

I hope that these observations are useful as you continue to develop mathematics in the school. As explained previously, this letter will be published on the Ofsted website. It may be used to inform decisions about any future inspection. Yours sincerely

Adrian Guy Her Majesty's Inspector