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18 May 2015

Mr C Dyson Headteacher Parklands Primary School Dufton Approach Leeds LS14 6ED

Dear Mr Dyson

Ofsted 2014–15 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of your staff and pupils, during my visit with Claire Brown HMI on 5 May 2015 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 pupils; scrutiny of relevant documentation; analysis of pupils' work; and observation of teaching and learning in lessons.

Leadership and management of mathematics

- Significant changes in leadership have meant that the school's priorities have focused less on mathematics than on other wider aspects of school improvement. Leaders are clear in their determination to raise standards and improve the quality of teaching in mathematics. However, while systems are in place to monitor the work of the school in the subject, leaders' approaches have been too generic and focused on ensuring compliance with school policies rather than the impact of initiatives to improve learning in mathematics.
- While current plans to bring about improvement in mathematics acknowledge the need to raise standards, they do not focus sufficiently on the key issues which are affecting the quality of teaching, pupils' achievement and the curriculum in mathematics and how leaders are going to address these.
- Teachers are positive about the support and training they have received to implement changes to the National Curriculum. While training has secured teachers' understanding of formal calculation methods, leaders acknowledge that teachers need more support and guidance to address weaknesses in their subject

expertise, particularly in developing pupils' reasoning and conceptual understanding, alongside fluent application of knowledge and methods.

The curriculum in mathematics

- The curriculum covers most of the content required by the National Curriculum. Nevertheless, many gaps in pupils' understanding are left over from the previous curriculum and these are not being identified and addressed carefully enough.
- The curriculum does not address all of the aims of the National Curriculum. While strengths are apparent in securing pupils' knowledge in using formal calculation methods, weaknesses exist in approaches to developing mathematical reasoning, problem solving and fluency in applying mathematical knowledge and methods.
- The extent to which curriculum guidance enables teachers to plan carefully structured sequences of lessons that build pupils' conceptual understanding of mathematics is underdeveloped. Consequently, work in pupils' books shows that they often return to the beginning of topics and cover work they have already done in previous years without deepening their knowledge and understanding, which is slowing their progress over time.

Teaching in mathematics

- Lessons are orderly and teachers are careful to explain clearly the steps pupils need to take to carry out calculations. Teachers have placed a heavy emphasis on practising methods of calculating. This has resulted in pupils often completing pages of calculations with too little challenge to extend or deepen their thinking. For example, in a lesson where pupils were asked to investigate whether adding two even numbers would give an odd or even number, all the calculations were written out for pupils. This limited opportunities for pupils to decide for themselves which numbers to add and deepen their understanding of number properties. During the lesson, even where pupils had worked hard to complete many calculations correctly, some struggled to explain what made a number even or reason which numbers might give them an answer which would be odd.
- Small class sizes and adult/pupil ratios have ensured pupils receive a high level of support. While this helps to keep pupils' focused on the work they are given, too often over-direction from adults restricts pupils' ability to think for themselves.
- Although pupils' work is marked regularly, comments from teachers miss important misconceptions and are not effective in helping pupils to make better progress. The school is currently reviewing its marking policy.
- In the early years classes, some good examples of carefully prepared play equipment help children to explore mathematical concepts. Occasionally, adults misjudge chances to build on children's curiosity and deepen their understanding. Coupled with unhelpful variation in the quality of adults' questioning and intervention in children's learning, children's opportunities to think critically, explore and use what they know in their play are sometimes limited.

Achievement in mathematics

■ Significant turbulence in staffing contributed to a fall in standards for Year 6 pupils in 2014. Leaders and governors accept that standards have been too low

and are determined to address this. The school's own tracking data suggest that standards are beginning to rise. However, this improvement is not matched by work in pupils' books. Too often, pupils' better progress is hampered because sequences of learning are not planned carefully enough or misconceptions are not addressed effectively.

- Pupils' skills and knowledge in carrying out formal calculations are much stronger than their ability to reason mathematically, solve a range of problems and apply mathematics with appropriate fluency. This is because too little emphasis is placed on developing these aspects within the curriculum and in approaches to teaching.
- Pupils' attitudes towards mathematics are positive and in lessons they comply readily with teachers' requests. They appreciate the support they receive in carrying out the work they are given.

Areas for improvement, which we discussed, include:

- raising achievement throughout the school by:
 - strengthening teachers' subject knowledge to underpin the development of pupils' mathematical understanding and reasoning skills
 - ensuring teachers plan sequences of lessons that build carefully on what pupils know, understand and can already do
 - ensuring feedback to pupils concentrates on making a difference to their progress and mathematical understanding
 - ensuring early years staff make the most of opportunities to build on what younger children show they are curious about and deepen their mathematical understanding
- strengthening subject leadership in mathematics by:
 - ensuring that monitoring activities emphasise mathematical development and focus on the impact of initiatives and teaching approaches
 - sharpening improvement plans for mathematics to focus on improving the quality of teaching and the development of pupils' conceptual understanding and mathematical reasoning.

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. A copy of this letter is also being sent to your local authority

Yours sincerely

Adrian Guy Her Majesty's Inspector