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Mr D Marshall Headteacher Mill Hill Primary School Doxford Park Sunderland Tyne and Wear SR3 2LE

Dear Mr Marshall

# **Ofsted 2013–14 subject survey inspection programme: mathematics**

Thank you for your hospitality and cooperation, and that of the Chair of the Governing Body, your staff and pupils, during my visit on 26 September 2013 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 you and senior leaders, the leader for mathematics, the Chair of the Governing Body; scrutiny of documentation including data regarding pupils' progress; a review of work from this and the last academic year of a sample of pupils in Years 1, 3 and 5; discussion with two pupils from Year 6; and observations of five lessons, four of which were carried out jointly with you.

# The overall effectiveness of mathematics is good.

### Achievement in mathematics is good.

- Since a dip in 2010, standards at Key Stages 1 and 2 have risen year on year to above average. Very nearly all Year 6 pupils left in 2013 having reached the level expected for their age; almost 60% did even better.
- True strengths in achievement are the care pupils take in setting out work, the stepped development of how to work out problems methodically and good progress over time for all pupils. All of the Year 6 pupils who left this year made the two levels' progress expected nationally during Key Stage 2, and just over half exceeded this, including pupils eligible for pupil premium funding. Boys and girls achieved similarly well.

- The school's own data for current pupils indicate some blips in progress in different year groups. Not all those pupils eligible for pupil premium funding or all pupils with special educational needs made expected progress last year to meet their targets. Additional support is planned to enable them to catch up.
- From starting in the Reception year, pupils gain a sound understanding of counting, place value, the four rules of number and differing strategies to solve mathematical problems. Year 2 pupils concentrated hard and worked well with their partners to find all the numbers possible using two or three digits. Some pupils explained confidently how to order the numbers based on how many hundreds, tens and units each number had.
- A few misconceptions were apparent in lessons and in discussion with older pupils regarding fractions, decimals and place value. Pupils are confident in applying procedures but do not always fully understand the underlying mathematical concepts. They tend to work through to the 'right answer' without sifting the information to make an initial estimation to guide self-checking.

### Teaching in mathematics is good.

- Basic number is taught very well. Teachers prepare sessions carefully, drawing on good subject knowledge. They make effective use of games and practical tasks to catch pupils' interest; for example, Year 6 pupils were calculating the costs to school of buying new sports equipment.
- Effective features in teaching seen were the frequent use of partner-work and encouragement to share thinking; probing questions which prompted pupils to explain and justify their answers; the reinforcement of key points, such as the use of zero in £3.40; reinforcement of concepts through handling relevant resources including ten-rods and hundred squares; reflective, helpful feedback to pupils in lessons and in books.
- Occasionally, chances were missed to use resources in class sessions to sustain pupils' involvement in coming to an answer. Similarly, some pupils' learning and confidence faltered because of lack of timely support and checks on their grasp of what they were finding out. Pupils' books showed that some able pupils may be working too much within their capability and that marking does not always focus well enough on how to do better.

### The curriculum in mathematics is good.

- The emphasis on the four rules of number is supported by investigations and problem solving, with some links to work in other subjects and activities in termly 'mathematics mornings'. Pupils' books have less to show progressive learning in other aspects of mathematics, or in the use of information and communication technology as a learning tool.
- The guidance for teachers is extensive and up-to-date. Teachers compile their own problem sheets, differentiate them to reflect pupils' abilities, and also draw on published material. At Key Stage 2, pupils work in ability sets

and lessons at the local high school introduce Year 6 pupils to the Key Stage 3 curriculum and stretch the more able mathematicians.

## Leadership and management of mathematics are good.

- The strong lead given in the last few years means that several aspects of the provision are bordering on being outstanding. The subject leader is enthusiastic and knowledgeable about mathematics. Her vision for the subject is rooted in effective practice. By sharing ideas and indicating best practice, underscored by information from national reports and professional organisations, she has supported staff in raising attainment in mathematics. Similarly, she has compiled materials to inform parents about the strategies taught in school and practical ideas to follow at home.
- Although close collaboration with the assessment and inclusion leaders ensures the subject leader has a rounded overview of how well pupils are progressing in mathematics, she has only a partial picture of the quality of teaching and learning. There is scope to draw on lesson observations, scrutiny of pupils' work and discussions with pupils to pinpoint barriers and strengths in learning, and thus ensure that improvement planning is even more closely linked to expected gains in pupils' performance.

## Areas for improvement, which we discussed, include:

- developing pupils' confidence in using their knowledge of number to give a 'best guess' in the early stage of tackling a mathematical problem
- finding more ways to vary the challenge for the most able pupils including questions, such as 'what if ...?' or 'what about ...' to extend thinking.
- maximising consistency in marking by sharing best practice which tells pupils how well they have met the aim of the task and what will make a difference next time
- widening further the use of 'real-life' situations and curricular themes to pose mathematical problems in all year groups which ensure the use and application of strategies taught in mathematics lessons
- sharpening the monitoring and evaluation of the impact of teaching on learning and refining planning for improvement.

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

Sonja Øyen Her Majesty's Inspector