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Dear Mr Tumelty

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 15 and 16 June 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, groups of pupils and the local authority's mathematics consultant, scrutiny of relevant documentation, analysis of pupils' work and observation of six lessons.

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

Achievement and standards

Achievement in mathematics is satisfactory. Standards are above average.

- Pupils' attainment on entry to the school in Year 7 is above average.
- Standards have risen in the last two years, most strongly at GCSE where they rose sharply from average in 2007 to above average in 2008. Boys' performance improved markedly. The school expects to sustain and build on these improvements this year and has set ambitious targets.
- Standards in 'using and applying mathematics' are lower than in other areas of the mathematics curriculum. Pupils' progress in it is not formally assessed.
- Pupils' achievement in Key Stage 4 is satisfactory. Almost all pupils pass GCSE mathematics, and while an above average proportion gain grade C or higher, there is scope to increase the proportions of pupils attaining the highest grades. In general, pupils do less well in mathematics than in their other subjects.

- At Key Stage 3, a trend of unsatisfactory achievement has been arrested and reversed. The school's data shows achievement is now broadly average.
- The school has correctly identified that girls do not achieve as well as boys, particularly those who are middle or low attaining on entry. Pupils who have learning difficulties generally progress at least as well as their peers.
- Behaviour is often good in lessons. Pupils are compliant learners. They enjoy opportunities to talk about mathematical tasks in pairs and groups.

Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is satisfactory.

- The quality of teaching varies but is satisfactory overall with some strong practice. Many lessons contain good features, such as use of discussion and practical approaches, for example to determine the formula for the area of a circle or when exploring Pythagoras' theorem. Routines are well established. Good relationships enable unobtrusive behaviour management.
- The best teaching is characterised by high expectations of all pupils and an exacting attention to mathematical correctness. Pupils are challenged to think hard for themselves, and given time to do so. A good feature of many lessons is teachers' questioning and explanations.
- Weaker aspects of the teaching include a lack of variety of activities and a slow pace in learning. Scrutiny of pupils' work shows they experience a predominance of illustrative examples followed by plenty of practice: opportunities for solving problems in new or unusual contexts are limited. Pupils comment that they meet problems of this type in tests but less frequently in lessons. Scrutiny also shows teaching for progression is less effective in some sets and there is variation in the emphasis teachers give to some topics, for example aspects of algebra.
- Some good use is made by pupils of question-level analysis to identify areas for further work or practice, and some show responsibility for taking this forward.
- Homework tends to be set once a fortnight and is often marked by pupils under teachers' guidance in lessons. They say this helps them understand their errors. However, some errors and misconceptions go unnoticed.
- Information and communication technology (ICT) is rarely used to enhance learning in mathematics.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is satisfactory.

- Substantial progress has been made over the last couple of years to establish tiered schemes of work for each year group, with helpful links to many useful resources. Planned work on revising the Year 7 programme in light of the new National Curriculum with its emphasis on the key process skills has not taken place, due in part to absence of key staff.
- The department is poised to develop the mathematics curriculum. At present, there is considerable unevenness in the curriculum pupils receive. Coverage of content is better in some classes than others, with higher sets tending to receive a more coherent programme although the emphasis placed on different topics varies from class to class. Expectations of lower attaining pupils are not consistently high. Key weaknesses are a lack of attention given to using and applying mathematics and the use of ICT.

- The department is at an early stage of developments in assessing pupils' progress and functional skills.
- Suitable enrichment activities include interesting cross-curricular projects with the science department.

Leadership and management of mathematics

The leadership and management of mathematics are satisfactory.

- The senior leadership team tackled weaknesses in mathematics robustly following the school's inspection in November 2006 when to raise standards and achievement in mathematics was identified as an area for improvement.
- The head of department has a clear vision for the development of the department's work. She is overseeing a successful drive to raise standards: the capacity for further improvement is good. She has made significant strides over the last couple of years in setting up necessary management structures. In particular, she has established appropriate assessment systems for gauging pupils' attainment and tracking their progress. Her analysis of data is thorough.
- The head of department leads by example in the classroom. During the inspection, teachers showed a readiness to reflect on their practice and discuss ideas for improvement. Informal collaboration means ideas are increasingly being shared. However, there has been too little monitoring this year to ensure inconsistencies are identified and ironed out, thereby securing more rapid improvement in quality.
- Development planning covers many important areas but needs reviewing and refining to map out the next steps more clearly and to include a well-defined timeline and clear lines of accountability.
- The department is engaged in the early phases of collaboration through a local network and with a partner school. This is an exciting step.

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

- Senior staff adopted effective approaches, such as mentoring, to support and challenge individual staff to improve the quality of their teaching. You are clear that the subsequent change in culture places the department in a much stronger position to bring further improvement under the head of department's leadership.
- The department is benefiting from the local Furness network and the input from the local authority's consultant.

Areas for improvement, which we discussed, included:

- updating the schemes of work and develop guidance for staff on approaches that promote conceptual understanding and secure progression
- increasing opportunities for pupils of all ages and abilities to use and apply mathematics and use ICT to enhance their learning
- making better use of monitoring to improve consistency, identify good practice and tackle weaknesses
- devolving responsibility for, and increasing teamwork in, curricular developments.

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

Jane Jones
Her Majesty's Inspector