London WC2B 6SE

 Aviation House
 T 0300 123 1231

 125 Kingsway
 F 020 7421 6855
enquiries@ofsted.gov.uk www.ofsted.gov.uk



16 February 2011

Mr A George Headteacher Thomas Hickman School Belgrave Road Aylesbury Buckinghamshire HP19 9HP

Dear Mr George

Ofsted 2010–11 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of the staff and pupils, during my visit on 2 February 2011 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 six lessons.

The overall effectiveness of mathematics is inadequate.

Achievement in mathematics

Achievement in mathematics is inadequate.

- Attainment in mathematics is low and has been for some time. In 2010 it was well below other schools nationally, and dropped further from 2009. This was the case for pupils' performance in national assessments at ages 7 and 11. Moreover, in 2010, very few pupils reached the higher levels by the end of each key stage.
- The progress made by pupils is also significantly below national averages and shows little sign of improvement. It remains rooted in the lowest 12% of all schools nationally. The current data available in school show that many pupils continue to make less than expected progress and indicate that only around half are likely to reach the required level by age 11.
- Although many pupils make inadequate progress, some groups are noticeably making worse progress than their peers. These include all pupils who have lower than average ability in mathematics, but especially

the girls, and all pupils who have special educational needs and/or disabilities. There were few signs of the situation improving rapidly at the time of the inspection.

Lessons observed showed a mixed picture but many pupils were not making progress towards improving understanding. Despite this, pupils do enjoy mathematics although they also recognise it is too easy for many.

Quality of teaching in mathematics

The quality of teaching in mathematics is inadequate.

- While the teaching has some strengths, the overall quality is too variable between classes. Many of the strengths relate to generic teaching skills rather than being specific to mathematics. For example, good relationships between teachers and pupils lead to positive attitudes to learning. Teachers are using success criteria well to help pupils know what they need to do to improve and many lessons draw effectively on practical and interactive resources. The use of teaching assistants is variable with some left passively waiting while teachers hold lengthy introductory sessions.
- Despite these skills, sessions are characterised by too slow a pace and limited challenge, especially for more able pupils. Questioning usually requires brief answers which are then not often followed up. As a result, many pupils use mathematical vocabulary in a limited way and misunderstand key concepts. Occasionally, teachers use inaccurate mathematical language themselves. Teachers use complex lesson structures which limit the amount of time available for independent work. Consequently, core number knowledge remains insecure for many pupils, especially in fractions, decimals and percentages, and limits their ability to apply such skills in solving problems. Many pupils rely on basic counting to solve problems rather than applying fluent skills or understanding of number.
- The assessment of pupils' skills and knowledge is improving but is sometimes inaccurate. Limited use of questioning means that teachers are unsure how to resolve pupils' misconceptions. Marking is not always up to date and when comments are made few are followed up.

Quality of the curriculum in mathematics

The quality of the curriculum in mathematics is inadequate.

The school provides daily mathematics lessons and has taken recent steps to improve pupils' progress, including a common planning format. The school is making efforts to implement these. However, much time within lessons is not used effectively, thus limiting the impact of any additional support. Expectations are too low and pupils are not able to demonstrate their potential. There are few examples of any imaginative use of extra-curricular activities such as a mathematics club. Homework is completed but many pupils say it is set infrequently or provides routine practice.

The time spent learning mathematics is reduced by over-long introductions and lengthy summaries. A dependence on published materials or 'one-off' lessons impedes the development of deeper understanding. Missed opportunities to make links between aspects of mathematics, coupled with teachers' insecure subject knowledge, result in a lack of sufficient depth and challenge in pupils' experience of learning mathematics.

Effectiveness of leadership and management in mathematics

Leadership and management in mathematics are inadequate.

- The school is aware of many of the limitations outlined above and is keen to improve outcomes. The subject co-ordinator had led the subject for the past 5 years but has revised her role recently. She has completed an audit and is undertaking additional significant professional training. Her recent action plan identifies appropriate priorities. However, although the school monitors teaching in mathematics on a half-termly basis practice is very variable.
- Governors do not contribute fully to a strategic evaluation of mathematics and have not made it a priority in school until recently. However, leaders recognise the deficiencies and have reacted pro actively to secure improvement. The impact of their actions is yet to be seen. As a result of refreshed planning and monitoring, the capacity to improve is satisfactory.

Areas for improvement, which we discussed, include:

- improving attainment and pupils' progress across the school, initially in number work, by significantly raising expectations for all pupils
- improving the quality and frequency of questioning by teachers in lessons to assess pupils' understanding better and to improve challenge
- improving teachers' subject knowledge and provision for pupils with special educational needs and/or disabilities
- enhancing the curriculum by refreshing homework practices and monitoring the amount of time given to working mathematically during lessons
- ensuring that mathematics leaders monitor the impact of changes on pupils' outcomes rigorously.

I hope that these observations are useful as you continue to develop mathematics in the school.

This visit has raised concerns about the school's work in mathematics. I will report these to the Regional Divisional Manager who will consider what action to take and may arrange an inspection of the whole school.

As I 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

Ceri Morgan Her Majesty's Inspector