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Mr C Durie
Headteacher
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Dear Mr Durie

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of the staff and pupils, during my visit on 23 and 24 March 2010 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 how well the curriculum secures progression in mathematical understanding for every pupil.

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.

The evidence used to inform the judgements included interviews with staff and pupils, scrutiny of relevant documentation, analysis of pupils' work and observation of seven lessons.

The overall effectiveness of mathematics is good.

Achievement in mathematics

Achievement in mathematics is good.

- By the time pupils leave the school at the end of Year 8, they have made good progress to reach standards above those typically achieved by pupils aged 13 years. Results in the statutory tests at the end of Year 6 are usually in line with the national average although, in 2009, the percentage gaining the higher Level 5 was much lower than average. The school has prioritised this issue and the current attainment of more able pupils is improving and is much closer to average. Pupils who have special educational needs and/or disabilities achieve well.

- Pupils enjoy mathematics, see its relevance and importance, are prepared to become fully engaged in lessons and have a very positive work ethic.
- The quality of learning is good overall. Where the curriculum is planned carefully, pupils develop secure conceptual understanding. For example, when higher ability pupils in Year 8 were constructing scatter graphs, drawing conclusions and making predictions, they were able to use knowledge from previous lessons where they had built their understanding of relationships and analysis of data.

Quality of teaching of mathematics

The quality of teaching of mathematics is good.

- Lessons typically start with interesting activities which kindle pupils' interests and are relevant to the main teaching focus. Teachers ensure that pupils know what they are going to learn and why, often relating it to real-life examples to help their understanding.
- Teachers have a secure subject knowledge which they use in explaining new concepts and processes clearly. They ask well-targeted questions to help pupils make progress through explaining their reasoning and this, in turn, aids their understanding. Questioning could be even more effective if it involved all pupils, for example by using small personal whiteboards to provide responses so that the teacher immediately knows which pupils have understood.
- Teachers use a range of resources, including interactive whiteboards and published materials, to maintain a brisk pace in lessons. Pupils say they enjoy working from books to practise and improve their knowledge and understanding. They are expected to work hard and most do.
- While teachers have good assessment information, it is not yet used consistently well enough to tailor work precisely to the needs of all pupils, particularly the more able. There is good support for pupils with special educational needs and/or disabilities so that they make good progress.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is satisfactory.

- Well-planned schemes of work help to make sure that all aspects of the National Curriculum are taught and that pupils have many opportunities to use their mathematics in everyday situations. Teachers plan interesting activities that motivate and engage pupils and supplement these with the effective use of published materials. The school has recently purchased new materials to meet the needs of higher ability pupils in Year 6 and these are providing more suitably challenging activities.
- While there are examples of the use of information and communication technology (ICT), such as creating questionnaires to collect data and generating graphs to test a hypothesis, pupils say they would like to have more opportunities to use ICT and more practical activities in their mathematics lessons.

- The school has a good system for assessing exactly what pupils can do and understand but it is less effective at using this information to adjust the curriculum to better meet the needs of pupils of different abilities. This is exemplified by a lack of planned progression in some key areas of mathematical understanding, for example calculating with decimals. Restricting opportunities, after exercises, to extension activities with whole numbers means that higher ability pupils are spending too long calculating with whole numbers, which they can already do, and not enough time on more difficult areas such as exploring the effect of multiplication of decimals.

Effectiveness of leadership and management of mathematics

The effectiveness of the leadership and management of mathematics is good.

- The mathematics department is well led by an experienced head of department and a newly appointed Key Stage 2 coordinator. They have enthusiastic and energetic drive and commitment, and are working hard to secure the best possible outcomes for all pupils in mathematics.
- Well-organised systems and plans prioritise accurately those groups of pupils who have, historically, made least progress. The monitoring system is used effectively to make sure that all pupils make good progress and this is having a positive impact on pupils' outcomes. The effective way in which this area for improvement from the school's previous inspection has been tackled demonstrates the school's good capacity for further improvement in mathematics.
- The department has effective processes for evaluating how well it is doing. However, more careful analysis of pupils' work and assessment records is required to assess the effectiveness of the curriculum and identify appropriate actions.

Subject issue: how well the curriculum secures progression in mathematical understanding for every pupil

- The curriculum is planned using national strategy frameworks and is appropriate for pupils of different ages. More recently, the school has been assessing pupils' progress more rigorously so that it has a better understanding of what pupils know, understand and can do. However, pupils' individual targets are not always matched to the planned curriculum, for example where a pupil's target relates to adding three-digit numbers yet no work is planned to ensure that this has been followed through.
- Some pupils say they find decimals difficult. The lack of evidence in books in all year groups shows progression in conceptual understanding and skills in calculating using decimal numbers has not been secured. Pupils are confident when multiplying by two-digit numbers because they are taught a range of methods which help their understanding of the process. However, they are less confident with division, where they say they are taught only one method.

Areas for improvement, which we discussed, include:

- using assessment information to refine lesson planning to more closely match the needs of higher attaining pupils within each set
- monitoring and evaluating pupils' progress in key areas of mathematics to improve curriculum planning and ensure progression in skills and understanding.

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

As we explained previously, 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

Christine Cottam
Additional Inspector