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Ms E Carruthers
Headteacher
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Ship Lane
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Dear Ms Carruthers

Ofsted 2009-10 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of the staff and children, during my visit on 18 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 child.

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; discussions with staff and children; scrutiny of relevant documentation; analysis of children's work and records of their progress; and observations of five focused teaching sessions and a range of activities indoors and out.

The overall effectiveness of mathematics is outstanding.

Achievement in mathematics

Achievement in mathematics is outstanding.

- Most children start Nursery with a very low base of skills and experience. All make good progress in all areas of problem-solving, reasoning and number. They do particularly well in developing their knowledge and understanding of number and many make very good gains in their calculation skills. The majority of children who have sustained experience in the Nursery exceed expected levels by the time they move to the Reception Year. A minority of children are working within early learning goals in all areas.

- Children from a wide variety of minority ethnic groups achieve at least as well as their peers. Those in the early stages of learning English as an additional language do better in number-related aspects of learning than in areas such as understanding of space and measure. The development of children's conceptual understanding of these areas is a particular focus this year and is being promoted through a wide range of practical activities.
- Children thoroughly enjoy a wide range of stimulating activities that extends their understanding across all areas. Many show a high level of interest in using graphics to support their mathematical thinking, for example, in making marks to represent the number of objects in a particular group.

Quality of teaching of mathematics

The quality of teaching of mathematics is good.

- Practitioners are very aware of individual children's needs and levels of understanding. As a result, they provide high-quality support for child-initiated activities, asking questions and making suggestions to extend children's understanding of concepts such as 'full' and 'empty'.
- In focused group sessions, practitioners often make good use of resources, gestures and clear explanations to support children's learning in a particular area of mathematics. On occasions, opportunities are missed to engage all children in the focused activity and to encourage them to use the key vocabulary that is identified in planning. As a result, a few tend to opt out or become passive and do not benefit from the activity as much as they might.
- Excellent use is made of assessment to monitor children's progress. Focused observations, annotations, photographs and learning stories are used well to demonstrate their growing understanding. These are shared with parents and 'next steps' are identified to focus teaching and make adaptations to provision to extend learning further.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is outstanding.

- The curriculum is largely based on children's emerging interests so that their understanding can be supported and extended. A few children are showing particular interest in large numbers and displays reflect this, for example, by showing the relationship between 10, 100 and 1000. An activity exploring weight allowed children to use a variety of scales; some became particularly interested in weighing themselves in kilograms and in discussing the digits in 15 and 18. The practitioner encouraged discussion about which was the bigger number and the differences in the readings as children stepped on to the scales holding a variety of objects, such as weights and tins.

- An exceptionally wide range of stimulating activities supports children's growing understanding. The food project, for example, promotes exploration of shape, space and capacity. Because children are encouraged to select containers and utensils for cooking independently, they begin to gain a good understanding of measure and comparative language.
- Routine activities, such as registration and snack time, are used well to teach aspects of mathematics, particularly number, in a meaningful and relevant way. Helping an adult to lay tables for lunch involves children in discussing the shape of the tablecloths and understanding individual correspondence as they set out chairs, plates and cutlery.

Effectiveness of leadership and management of mathematics

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

- Mathematics became a particular area of focus three years ago as leaders identified that children's scores in this area were lower than in other aspects of their learning. A comprehensive programme of professional development was initiated, based on an audit of staff awareness and confidence in teaching mathematics. A focus on developing a mathematical environment and exploring how children think mathematically has had significant impact in enhancing provision and improving achievement.
- Inclusion is a particularly strong feature of the nursery's work. All children have access to all activities, with adaptations made to support their individual needs wherever possible. The work of a bilingual assistant is particularly successful in enabling Somali children to participate in group activities.
- Monitoring and analysis of different groups of children enable leaders to identify where progress might be improved. The most recent evaluation has identified that certain groups of boys and children who are learning English as an additional language need particular support to grasp concepts of ordering by weight and length and of use of number language. Good adjustments have been made to the provision to allow plenty of opportunities for children to explore these aspects of mathematics.

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

- Staff's observations of individual children are key to planning the next steps in their learning. A practitioner noted, for example, that a child was showing keen interest in construction, building towers and exploring the height of children and adults in relation to these. The next step planned was to extend his understanding of comparative language and of ways of measuring using standard and non-standard units.

- Structured sessions, such as snack times, are planned to develop progression in understanding of number. The focus has moved from earlier in the year, when children were counting how many pieces of fruit were available, to recently estimating and checking how many are left when everybody has taken one and calculating whether there are enough for each child to have one more.

Areas for improvement, which we discussed, include:

- sharing strategies to ensure that all children are fully engaged in focused group sessions, that key mathematical vocabulary is used effectively by practitioners and that children are encouraged to use it themselves.

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

Shirley Billington
Additional Inspector