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Mr MJ Gledhill Headteacher The Kingsway School Foxland Road Cheadle Cheshire SK8 4QX

Dear Mr Gledhill

### Ofsted 2011–12 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of the staff and students, during my visit on 14 and 15 June 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 students; scrutiny of relevant documentation; analysis of students' work; observation of six lessons and brief visits to six other lessons.

The overall effectiveness of mathematics is good.

#### **Achievement in mathematics**

Achievement in mathematics is good.

- Attainment has been well above average for a number of years. Attainment at GCSE is high, with 72 % of students gaining A\* to C grades in 2010. Early entry results and internal monitoring data indicate the proportion is likely to increase this year.
- In recent years, students have made better than average progress when compared with similar schools nationally. In 2010, however, the average rate of progress slowed across all subjects, including mathematics. The school has acted quickly to identify the reasons and address the issues. Monitoring data indicate that progress has improved this year in both key stages.

■ Students make good progress overall. Most lessons move at a good pace and students participate well. Behaviour is very good and students have a mature approach to discussion. They listen carefully to other students' contributions and respect different viewpoints. Students are not afraid to 'have a go' and put forward possible solutions. Students enjoy learning, are well-motivated and show initiative.

## Quality of teaching in mathematics

The quality of teaching in mathematics is good.

- Teachers plan lessons that place the responsibility for learning on students. Investigations encourage students to explore mathematical ideas for themselves. Teachers' good range of different approaches makes students think deeply about concepts. Lessons also include opportunities for students to use and apply their knowledge in different contexts.
- Teachers have very good subject knowledge. They have very good questioning skills and use them well to probe understanding and to challenge thinking. Students of all abilities are willing to explain their reasoning and are encouraged to use mathematical language.
- Teachers plan a variety of activities to ensure that lessons are enjoyable. In the best lessons, teachers achieve a good balance between exploratory activities and practice exercises to consolidate new skills. Occasionally, in lessons exploratory activities were not managed efficiently enough and the pace of learning slackened.
- Marking is generally good and students receive useful feedback to help them improve their work. In lessons, teachers regularly check learning and understanding. They circulate well and make effective use of mini plenaries. In the best lessons, teachers use information they have gleaned to enhance later parts of the lesson by highlighting outstanding practice and tackling any common misconceptions or mistakes.
- Good links between the mathematics and support teams ensure that additional adults are deployed well. Learning support assistants have good questioning skills and work effectively with class teachers. A number of the support team specialise in mathematics and have a good working knowledge of the curriculum.

## **Quality of the curriculum in mathematics**

The quality of the curriculum in mathematics is outstanding.

- The curriculum encourages investigation and develops students' problemsolving skills. Students are forced to consider and discuss underlying concepts. They develop a methodical approach to finding solutions rather than relying on memorising a collection of algorithms. They are encouraged to spot patterns and see links between different topics.
- The school's reputation for having an innovative approach to mathematics has attracted well qualified and enthusiastic new staff. Working with Manchester Metropolitan University on the 'Mathematics in Context' project

has also provided opportunities for established teachers to lead workshops and host visits for teachers from elsewhere.

- Schemes of work are available electronically with good links to resources that support exploratory teaching or a more traditional approach. The curriculum is under regular review. The Key Stage 3 curriculum was revised for this year and new schemes and materials have been developed for Key Stage 4. The Free Standing Mathematics Qualification in additional mathematics prepares the most able mathematicians for the next stage.
- The mathematics specialism makes a very valuable contribution to the school. Extra funding supported the introduction of an additional set in Key Stage 4 making smaller groups that benefit the most and the least able. Information and communication technology (ICT) resources, such as voting pads, have been acquired and shared with other departments. Mathematics teachers lead professional development training for teachers from across the school and outside.
- The specialism has also supported the enrichment of the mathematics curriculum by encouraging students' participation in competitions and projects such as the 'Fit 4 Figures' programme in which Year 10 students mentor Year 7 students. The mathematics team has also played a key role in developing projects for Year 7 and Year 8 theme days.

# **Effectiveness of leadership and management in mathematics**

The effectiveness of leadership and management in mathematics is good.

- The mathematics team is well qualified, works closely together and is stable. Teachers have a good blend of expertise and experience. The team is very committed to providing a well-rounded mathematical education and teaching for understanding. Regular meetings are used to share good practice and review the department's progress.
- The new head of department is a strong leader. He is energetic and constantly looking at ways to develop and improve provision. He has a good grasp of the strengths of the department and the areas where further development is needed.
- Examination results are analysed carefully and changes made as a result. In the past the school and the department have been slow to use data analysis to identify underperformance mid-year to intervene quickly. However, the monitoring of students' progress has been considerably strengthened over the last two years and is ready for further refinement.
- A more comprehensive programme of interventions has been introduced this year and students say that it is helping. Leaders and managers are monitoring the different initiatives and have begun to evaluate their impact.

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

ensuring that innovative approaches and investigations do not slow the pace of learning ■ reviewing and refining the use of data and the intervention programme.

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

As 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

Jan Bennett Her Majesty's Inspector