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19 June 2014

Mr S Ratheram
Principal
Cottingham High School and Sixth Form College
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Dear Mr Ratheram

Ofsted 2014–15 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 10 and 11 June 2014 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; a joint lesson observation and shorter visits to 16 lessons and three intervention sessions.

The overall effectiveness of mathematics is good.

Achievement in mathematics is good.

- Internal data, that have proved accurate in the past, show that GCSE results should improve markedly this year from around average to above. The gap between the achievement of students attracting pupil premium funding and others opened up last year and was wider than average but should be more than halved this year.
- Achievement in the sixth form is improving and is good. Mathematics is the most popular A-level subject and a high proportion of sixth-formers study mathematics-related subjects at university.
- Students' books show that their understanding gets progressively more secure and learning is consolidated well. Misconceptions are highlighted

and addressed well. Students try hard in lessons and learn from their own mistakes and those of others.

Teaching in mathematics is good.

- The majority of teaching is good with pockets of outstanding practice, and none is inadequate. Most teaching is traditional in style but is skilfully delivered, building well on earlier learning and ensuring that new skills are practised and secured effectively.
- All teachers are subject specialists who have a love of mathematics. They teach across the age and ability range. They make very good use of their mathematical insight to pinpoint and unravel students' misconceptions. Teachers' questioning skills are sharp and students are encouraged to interrogate their own solutions and those of others.
- Teachers are making increasing use of assessment data to plan lessons. Underachieving students are identified and strategies implemented to support them. Careful analysis of marked examination papers also helps teachers and students to direct their efforts effectively.
- Marking and feedback are good. The new policy introduced in January 2014 is not completely embedded but many examples in students' books show how focused feedback is helping individual students to improve their work and further their understanding.
- Students say that they are taught well and preparation for examinations is good but they find lessons predictable and a little lacklustre at times. They would welcome opportunities to learn in different ways.

The curriculum in mathematics is good.

- The curriculum is re-examined regularly and preparations are well underway to accommodate forthcoming national changes. Schemes of work provide enough information to support new teachers but give flexibility to those with experience. Students are set by ability; individuals' progress is reviewed often and movement between sets works well.
- Cottingham is in a consortium with two other schools. The benefits include good networking among subject leaders, opportunities for staff to share best practice and more subject choice for sixth formers, including the option of studying further mathematics. The mathematics team also has close links with the university and is part of wider local networks.
- Links with local primary schools are good. Primary pupils attend taster sessions at Cottingham and members of the mathematics team are helping Year 6 teachers to teach higher level topics.
- Interventions sessions to tackle underachievement are good across the age range. They are increasingly well planned and matched to needs. All sessions are delivered by mathematics specialists. Pupil premium funding is used to deliver additional intensive support in small groups and is helping disadvantaged students catch up with their peers.

Leadership and management of mathematics are good.

- Senior leadership was restructured in September 2013, giving a clear focus and high priority to improving teaching and the effective use of data. Strategies to strengthen the monitoring of students' progress and link this to lesson planning have had a positive impact on the quality of teaching and students' achievement.
- The head of faculty took up post in September 2013. He is very enthusiastic and energetic, and has done much to raise the profile of mathematics in the school and move the faculty forward. As a new head of faculty, he receives good support from the senior team. He is very ambitious for the faculty and is driving improvements at a well-judged pace, prioritising well.
- The mathematics team has a wealth of experience and members work very well together. A dedicated mathematics area facilitates the effective sharing of resources and best practice. The teachers enjoy testing out their mathematical skills, showing a healthy competition between each other.
- Self-evaluation is sharp and accurate. Lesson observations, work scrutiny, and informal visits to lessons are used well to check the quality of teaching and learning in mathematics. Performance management targets are challenging and focused on teaching and achievement, especially of underachieving groups. Leaders at all levels are keen to improve and are constantly looking for ways to refine systems and make the provision better.

Areas for improvement, which we discussed, include:

- introducing more variety into lessons to enliven teaching without jeopardising the good learning already taking place.

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

As explained previously, this letter will be published on the Ofsted website. It may be used to inform decisions about any future inspection.

Yours sincerely

Jan Bennett
Her Majesty's Inspector