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31 May 2012

Dr P McGovern Headteacher Helston Community College Church Hill Helston Cornwall TR13 8NR

Dear Dr McGovern

# **Ofsted 2012–13 subject survey inspection programme: mathematics**

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 15 and 16 May 2012 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; and observation of eight lessons.

The overall effectiveness of mathematics is outstanding.

### Achievement in mathematics

Achievement in mathematics is outstanding.

- Students enter the school with attainment that is broadly average. They make rapid progress in Key Stages 3 and 4 and the sixth form compared with students nationally given their starting points. The proportions attaining grades A\* or A and grades A\* to C are significantly above average.
- In most lessons students make excellent progress. They work independently and with their peers discussing their thoughts and ideas. They enjoy being challenged, show resilience and a determination to succeed.
- Students have extremely positive attitudes to mathematics. Behaviour observed was of a very high standard. Excellent relationships and mutual

respect between students and their teachers contribute to high-quality learning.

## **Quality of teaching in mathematics**

The quality of teaching in mathematics is outstanding.

- Lessons are planned thoroughly and focus on developing conceptual understanding, independence and communication skills. The school's TRIC initiative, which focuses on team, reflective, independent and creative learning, ensures that lessons incorporate regular opportunities for students to develop each of these four strands.
- Discussion is a key feature. Students explore new ideas and concepts and communicate their ideas to their teacher and each other. Teachers use high-quality questioning techniques to assess students' understanding and to deepen their learning. Possible misconceptions are anticipated and used to promote discussion.
- Teachers use mini-whiteboards very effectively to ensure that all students participate fully, and to assess understanding, identify possible misconceptions and to generate discussion. Students are aware of their target grades, their current working level and what they need to do to improve. This information is obtained through an online program. Students commented that they use this regularly and it enables them to see their current grades and what aspect of mathematics they need to improve to attain higher grades. The quality and consistency of teachers' marking are currently under review by the department. Marking needs to be formalised with the aim of providing regular, constructive feedback.

## Quality of the curriculum in mathematics

The quality of the curriculum in mathematics is outstanding.

- Schemes of learning are comprehensive and provide a cohesive approach within the department. Key learning points are emphasised with success criteria and common misconceptions highlighted. Continuity and progression are built in with adequate opportunities to support those that need it and to extend learning for the most able. Opportunities to study additional mathematics and statistics are provided alongside GCSE mathematics. This has led to a dramatic increase in numbers studying mathematics in the sixth form.
- A clear focus throughout the curriculum on promoting independence and conceptual understanding is enhanced by the use of information and communication technology (ICT) and regular opportunities for problem solving and investigational approaches. Graphical calculators are used in post-16 lessons and homework tasks are available online. Intervention targets students at all of the GCSE grade boundaries. Moreover, it is analysed in depth and adapted accordingly. Data indicate that students make rapid progress.

Students have excellent opportunities to experience mathematics beyond the classroom including national challenges, an online trading challenge, inter-house competitions and a puzzle club. On 'collapsed timetable days', students have the opportunity to use their mathematics skills alongside other subjects; for example combining mathematics with technology and ICT departments during a day working on construction. The mathematics department provides family challenge evenings where parents and carers work with their children on mathematical problems. Strong links with the community mean, for instance, that students benefit from attending sessions on Egyptian mathematics run by a local museum, and engineers from an air station show students how they use mathematics in their everyday life. Sixth form students also work alongside Key Stage 3 students, providing support for those who need it and also challenging and raising aspirations of gifted students.

## Effectiveness of leadership and management in mathematics

The effectiveness of leadership and management in mathematics is outstanding.

- The subject leader has the highest of expectations which she communicates regularly to her team. She has implemented many initiatives which are carefully evaluated and have led to outstanding achievement and highly effective teaching. She is ably supported by other members of the department who hold leadership responsibilities.
- Targets are aspirational and each student's performance is monitored rigorously. Intervention is timely and effective. Performance management is used to maintain outstanding achievement and to ensure consistency in achieving the department's aims, for example by ensuring that teachers plan for and develop independence.
- Outstanding teaching is at the heart of the department. Formal lesson observations as well as learning walks are regular features and the accuracy of judgements is checked with senior leaders. Members of the department undertake paired lesson observations with each other and feed back at department meetings to share best practice and ideas.

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

ensuring that teachers' marking consistently informs students about what they need to do to improve.

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 Simon Rowe Additional Inspector