Aviation House 125 Kingsway London WC2B 6SE T 0300 123 1231 F 020 7421 6855 enquiries@ofsted.gov.uk www.ofsted.gov.uk



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Mrs L Sinclair Principal Hills Road Sixth Form College Cambridge CB2 8PE

Dear Mrs Sinclair

Ofsted 2010–11 good practice study: mathematics

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 7 and 8 February 2011 to look at your work in mathematics.

The visit provided valuable information which will contribute to our publication about good practice in mathematics. The publication will include case studies about individual providers. If your college is included as a case study, you will have an opportunity to comment prior to publication. 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 documents; and observation of six lessons.

Features of good practice

- Mathematics and further mathematics are highly successful and growing subjects at the college. A very large majority of students gain grades A* to B in their GCE AS and A2 examinations, and progression to higher education is very good. A slight drop in the A* to B pass rate in further mathematics reflects the increase in participation beyond the very able.
- Most students have positive attitudes to learning mathematics. Students particularly appreciate the extensive range of support available through peer mentoring, revision programmes, online support, mathematics 'surgeries', and the willingness of staff to give extra help outside lessons.
- Hills Road benefits from a large team of experienced and effective teachers, who demonstrate excellent knowledge of mathematics and the requirements of the GCE examinations. The departmental schemes of work include links to appropriate resources and provide a good framework for lesson planning.
- Teachers have high expectations. They give students plenty of opportunities to apply and practise previously learnt skills in new areas of mathematics and to work on problems under supervision. Teachers

circulate and intervene to address emerging misconceptions. They set more challenging work to stretch high-attaining students and to reveal the connections among different areas of mathematics.

- During my visit, I saw one satisfactory, three good and two outstanding lessons. In the best cases, teachers use innovative approaches that engage students in thinking about the underlying mathematical problem, and support them to work out their own solutions. Critically, teachers then summarise their findings and provide activities that allow students to consolidate their learning and deepen their understanding.
- The mathematics area provides a good learning environment. Posters and other displays are used well to promote mathematics. Students are offered good guidance on wider reading and the college's mathematics society enriches their learning experience.
- Departmental leadership is well matched to the strong, collegiate approach in mathematics. Teachers have good opportunities to discuss teaching and learning with each other and to share good practice. The vibrant team room plays an important role in enabling this process.
- The department has good links with other post-16 providers and with local schools. For example, there has been discussion about how best to prepare students for A-level study in mathematics. As a result, more schools locally are offering additional mathematics to their highest attaining students, rather than GCSE statistics.
- The college has a robust quality assurance process. Self-evaluation in mathematics, which is also informed by effective informal monitoring, is accurate and perceptive. The improvement plan has well-judged targets.

Areas for improvement, which we discussed, include:

- improving the impact of the departmental action plan by
 - making clear the rationale for each action point and defining success criteria based on appropriate performance indicators
 - ensuring that progress reviews consider the impact of actions on the intended improvement and any adjustments needed.

I hope that these observations are useful as you continue to develop mathematics at Hills Road Sixth Form College.

As I 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 will be sent to the Skills Funding Agency and Young People's Learning Agency.

Yours sincerely

Stephen Abbott Her Majesty's Inspector