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Mr M Rostron  
Principal  
Greenhead College  
Greenhead Road  
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Dear Mr Rostron

### **Ofsted 2010–11 good/best practice study: mathematics**

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 10 and 11 February 2011 to look at your 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 students' work and relevant documents; and observation of five lessons.

### **Features of good practice**

- Mathematics and further mathematics are highly successful advanced-level subjects at the college. A very large majority of students gain grades A\* to B in their GCE AS and A2 examinations; progression to higher education is very good. The department promotes its Year 13 AS further mathematics course well to students who plan to read highly mathematical subjects at university. This is partly in response to the feedback it obtains from past students. There will be scope to promote the full A level in further mathematics more strongly if accommodation issues can be resolved.
- Students have positive attitudes to learning mathematics. They appreciate the extensive range of support available. Many take advantage of the 'maths help' sessions, offered nine times a week, where staff volunteers and student mentors provide support to any student who needs it. Students also make good use of the mathematics section of the college virtual learning environment, both for support and for enrichment.
- Greenhead College 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, including practical and discussion-based activities. The team has developed packs of notes on each topic that are issued to students and referred to in many lessons.

- All the teaching observed was good or better. Lessons are well structured, with a development phase where students are introduced to new ideas, and a consolidation phase, where they work on exercises under supervision. As they do so, teachers circulate effectively to check on students' progress, addressing any misconceptions or difficulties that arise.
- Sometimes students are given a passive role during the development phase, with most of the ideas coming from the teacher and one or two students who volunteer contributions. Students respond well when they are given an active role in their learning. For example, in an outstanding lesson on numerical solutions of equations, students sketched graphs on their mini-whiteboards and made trial calculations to help them understand iterative methods. Their exploratory work helped them to appreciate the usefulness of such methods, and why they sometimes fail.
- The mathematics area provides a vibrant, if sometimes cramped, learning environment. Posters and other displays are used well to promote mathematics. Students are offered good guidance on wider reading and relevant careers and their learning is enriched through mathematics competitions and visits to universities. The most able students are supported well to prepare themselves for Oxbridge entry.
- The mathematics department is very well led, with close attention to detail. Self-evaluation is very thorough, with close analysis of results for different groups, and regular student questionnaires. Appropriate action is taken where issues arise. Very good systems monitor students' progress and ensure consistently good teaching. The head of department actively promotes the sharing of ideas and resources. The mathematics team is constantly seeking improvement.

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

- increasing the proportion of lessons where students are given an active role in developing new ideas
- increasing participation in A-level further mathematics.

I hope that these observations are useful as you continue to develop mathematics at Greenhead 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.

Yours sincerely

**Stephen Abbott**  
**Her Majesty's Inspector**