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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Mr D Curran Acting Headteacher Villiers High School Boyd Avenue Southall UB1 3BT

Dear Mr Curran

### Ofsted 2012–12 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 28 and 29 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; observation of 10 lessons and brief visits to two others. Most of the lesson observations were conducted with subject or senior leaders.

The overall effectiveness of mathematics is satisfactory.

#### Achievement in mathematics

Achievement in mathematics is satisfactory.

- Students' attainment on entry to the school is a little below average overall. More students than is typical join partway through their secondary education. Many do not have national Key Stage 2 test results, sometimes because they previously lived in another country. An increasing proportion is in the early stages of learning to speak English.
- Attainment is broadly average. More-able students achieved well in 2011, with around 30% of those entered for GCSE gaining A\*/A grades. A small group were successful with statistics GCSE. Students known to be eligible for free school meals attained as well as their peers. However, a group of 20 students who followed BTEC courses did not have the opportunity to take a qualification in mathematics: this was unsatisfactory. All students have been entered for GCSE this year. In 2011, an average proportion of

students made the expected 'three levels of progress' from their Key Stage 2 starting points. The picture was more mixed for those without prior attainment data.

- The school's first A-level cohort is due to complete the qualification this summer. Results from units taken already are stronger in pure mathematics than in the applications of statistics and mechanics.
- The quality of learning varies, mainly from satisfactory to good. Impediments to better learning include a lack of pace, particularly in starter activities and students' difficulties in applying methods that they do not fully understand.
- Students' behaviour and attitudes to learning mathematics were good in the observed lessons. Most persevere well. In discussions, Year 7 students were positive about the subject, while Year 10 students held more mixed views but were clear about the advantages of understanding what they learn over simply being able to get right answers.

#### Quality of teaching in mathematics

The quality of teaching in mathematics is satisfactory.

- The quality of teaching varies widely but with a core of good practice. Common strengths include teachers' management of students' behaviour. A general weakness is the lack of subject-specific support provided for students whose English is not yet fluent. The quality of marking also varies widely with some good examples of mistakes pinpointed and next steps modelled correctly. The weakest marking was cursory and sometimes missed important errors.
- The best teaching sequences learning through an interesting mix of tasks and resources, including practical activities and group work. Skilful questioning and discussion involves all, checks and probes understanding, builds on responses, and pays attention to mathematical language. The teachers monitor students' progress as they work, picking up on common errors to make timely teaching points to the whole class.
- Some of the weaker teaching reflects a lack of clarity about what is to be learnt at each stage of the lesson and how the learning might best be sequenced. Sometimes, teachers' explanations are too long, reducing the time for students to tackle tasks. A few teachers concentrate more on a method than on students' understanding of the underlying mathematics. Scrutiny of students' work showed this approach was more pronounced in some classes, with a prevalence of repetitive worksheets.

## Quality of the curriculum in mathematics

The quality of the curriculum in mathematics is satisfactory.

■ A strength of the curriculum is the way all teachers in the department are involved in developing schemes of work. Although teachers discuss ideas with each other in formally, the schemes could be strengthened if the best practice was captured in the form of guidance on approaches and

- activities that develop conceptual understanding. The use of information and communication technology is limited.
- Scrutiny of students' books showed some variability in the depth and coverage of topics, and the extent to which students solve problems and investigate within mathematics. All students have some opportunities to apply mathematics to problem solving, but such activity is not integral to everyday learning of mathematics, particularly in the lower sets.

## Effectiveness of leadership and management in mathematics

The effectiveness of leadership and management in mathematics is satisfactory.

- After a period of instability in subject leadership, a good team ethos has emerged. The subject leaders provide role models of good practice in teaching. Both showed a secure grasp of strengths and areas for development in the jointly observed lessons. Monitoring of teaching follows the school's systems of lesson observation, work scrutiny and learning walks, but records do not focus enough on the mathematical detail, particularly within learning and progress.
- The mathematics development plan identifies priorities but lacks clarity around the specific actions required to bring about improvements. It does not include arrangements for monitoring or evaluation, well-defined timescales, and implications for teachers' professional development.
- Data analysis identifies some potential underachievers. It is also used to pinpoint weaker topics which are discussed in departmental meetings. Extending such discussions to teaching approaches could potentially inform curriculum guidance and help raise the quality of teaching.

# Areas for improvement, which we discussed, include:

- raising the quality of teaching by providing guidance for teachers on approaches that support conceptual understanding; sequencing learning to secure progression in key strands of mathematics; and supporting the mathematical development of students who are learning to speak English
- driving improvement more rapidly by concentrating on the mathematical detail when monitoring teaching, learning and progress, and sharpening development planning.

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

Jane Jones Her Majesty's Inspector