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Mrs L Duncan Headteacher Sunbury Manor School Nursery Road Sunbury-on-Thames Surrey TW16 6LF

Dear Mrs Duncan

# Ofsted 2013–14 subject survey inspection programme: mathematics

Thank you for your hospitality and cooperation, and that of your staff and students, during my visit on 3 and 4 July 2013 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, analyses of students' work, observation of six lessons, three jointly with senior staff, and shorter visits to three other lessons.

### The overall effectiveness of mathematics requires improvement.

#### Achievement in mathematics requires improvement.

- Overall, students' attainment on entry to the academy is slightly below the national average. A significant minority arrive with complex social and personal needs, and with weak learning skills. Students' average point score at GCSE, and the proportion achieving the highest grades, have been below national averages for some years, but they are improving. The school's data suggests that outcomes for the current Year 11 will continue this trend.
- Students eligible for the pupil premium and the Year 7 catch-up premium (extra government funding) benefit from extra targeted support such as specialist one-to-one teaching. This is beginning to have an impact in Key Stage 3 but a gap in achievement remains by the end of Key Stage 4 because these students do not yet make the good progress necessary to catch up with their peers. Students who are disabled or have special education needs make secure but not rapid progress. Some have complex personal needs but more could be expected of many of them.

- Many students are willing learners, behave well, and usually enjoy mathematics. They say that they feel well supported but few speak up confidently in lessons to question their own and their friends' ideas and methods. Attitudes to misunderstandings and errors are healthy; students are generally willing to review work to find the reasons for wrong answers.
- Students do not have any formal opportunities to contribute their thinking and opinions to support the faculty's development.

# Teaching in mathematics requires improvement.

- The progress of all students is tracked closely and supplemented by a range of responses to underachievement by individuals and groups. Teachers question students to check their understanding, and move about the classroom offering challenge and support to individuals and groups. However, this good, accurate assessment does not always result in students of different abilities being given different work to do. Too often, whole classes work together, with a strong lead from the teacher. Students have too few opportunities to work in small groups, tackling a problem in their own way, and having the chance to make faster progress.
- Teachers share a desire to see achievement improve to become good, and learning to become more exciting. Test and examination outcomes are now being used to highlight the need for changes in the way that topics are taught, rather than simply informing revision and catch-up programmes. None of the teaching in the faculty is inadequate; none is outstanding.
- Teachers' subject knowledge is good and they are keen to develop their own mathematics expertise. For example, the head of faculty is providing training in aspects of post-16 work to assist staff to be able to provide stretch and challenge for the most-able students.
- Teachers are sometimes surprised that students' prior learning is not retained and so cannot be used effectively in new contexts. This is usually because learning was insecure at the time due to too great an emphasis on obtaining correct answers, rather than an insistence on students acquiring a deep and lasting understanding. For example, in a lesson on bearings in a flight plan, some forgotten basic principles of geometry impeded students' ability to calculate bearings for the return journey.

### The curriculum in mathematics requires improvement.

- Schemes of work follow the pattern of the awarding body's specification and concentrate on teaching specific mathematical skills rather than developing a strong and coherent grasp of mathematical concepts. Good practice in teaching and learning, previously shared informally, is currently not captured but is soon to become part of faculty meetings.
- Useful opportunities enable students to see the relevance of mathematics in different contexts. Year 8 students use transformations to plan a dance routine, and Year 7 students work with data from fitness testing in physical education and make use of their understanding of symmetry in art. However, the lack of a continual emphasis on students using mathematics in problem solving and seeing the relevance of the techniques they are learning

- means that students are often confident in specific skills but cannot employ them in longer questions or more challenging contexts.
- Computers are rarely used in mathematics lessons. Their application is limited to the use of a commercial programme for homework. Some students said that they would like more written mathematics homework.

# Leadership and management of mathematics require improvement.

- The faculty is currently undertaking an honest, thorough evaluation of its strengths and development needs, led by the head of faculty and her deputy. This has engendered a sense of excitement about rising to the challenge of producing good achievement, and capitalising on the very good working relationships established with students. Self-evaluation has not previously identified areas for improvement with sufficient precision, but enthusiasm for driving change, and a clear sense of how lessons and learning will be different are now evident.
- The head of faculty works closely with the senior team, with a good level of accountability. Previously modest achievement targets are being reworked to introduce significantly more challenge over longer timescales, and define higher levels of expectations of students.
- Improving the quality of teaching is given an appropriately high priority. Lesson observations and good feedback support teachers to improve their skills. Plans are in place to refine this process by judging particular aspects of teaching against a more detailed framework, in shorter timescales, and for training to be more closely matched to individuals' needs.

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

- ensuring that all lessons provide appropriate challenge and support for students according to their needs, and include opportunities for them to explore more individual approaches to problems
- enacting plans to refine judgements of teaching, giving effective feedback to teachers coupled with training that is targeted closely to need, to drive more rapid improvement
- capturing in schemes of work the outcomes of analyses of students' tests and examinations, and decisions taken about agreed approaches
- increasing the emphasis on developing problem-solving skills and the use of multi-stage, broader-based questions, ensuring mathematical skills are not taught in isolation.

I hope that these observations are useful as you continue to develop mathematics in the academy. As explained previously, 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

Alan Taylor-Bennett Her Majesty's Inspector