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Mr T P Moore-Bridger Headteacher King Edward VI School Church Street Stratford-upon-Avon Warwickshire CV37 6HB

Dear Mr Moore-Bridger

Ofsted 2008-09 subject survey inspection programme: mathematics

Thank you for your hospitality and co-operation, and that of your staff and boys, during my visit on 20 and 21 January 2009 to look at work in mathematics.

As outlined in our initial letter, as well as looking at key areas of the subject, the visit had a particular focus on the effectiveness of the school's approaches to improving the quality of teaching and learning 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. All feedback letters will be published on the Ofsted website at the end of each half-term.

The evidence used to inform the judgements made included interviews with staff and learners, scrutiny of relevant documentation, analysis of boys' work and observation of seven lessons.

The overall effectiveness of the subject, mathematics, was judged to be satisfactory.

Achievement and standards

Achievement in mathematics is good and standards are very high.

- Boys arrive at the school with standards well above average. They make good progress and achieve very good results in Key Stage 3 tests and GCSE and A-level examinations.
- The vast majority of boys reach the highest level possible in Key Stage 3 tests.
- The school rightfully sets challenging targets for the proportion of boys to attain A\* and A grades. In recent years the department has bettered their target and in 2008 over 90% of boys gained either a grade A or A\*, with half getting an A\*.
- Standards at A and AS level are both well above average. In 2008, when results of A-level mathematics and further mathematics are combined, over 85% of the

grades were A or B and value-added figures show that boys made good progress.

• Behaviour is excellent but boys are often compliant learners in lessons and do not readily demonstrate enthusiasm for the subject. They are, however, self-motivated and able to research work well for themselves outside of lessons.

## Quality of teaching and learning of mathematics

The quality of teaching and learning of mathematics is satisfactory.

- There are very good relationships between staff and boys. Boys are particularly appreciative of the time staff give in helping and supporting them, especially outside of lessons.
- Lesson planning draws on the available textbooks but too many lessons are based around boys working from exercises which they find dull and uninteresting. Insufficient note is taken of precisely what boys are to learn and how each might be challenged. Work is often not demanding enough for all the boys so, although they make good progress over time, they are compliant rather than dynamic learners. Teachers sometimes make effective use of the electronic whiteboards which are in every classroom.
- In the better lessons, teachers question boys and engage them in dialogue so that progress is good. At times, teachers use boys' responses well to develop mathematical argument and discussion. Boys are lively and eager to discuss their work, giving reasons for their answers. Occasionally they are also given the opportunity to decide the questions they answer so they can miss out simple questions and progress to a starting point which they recognise will challenge them. They say they really enjoy lessons like these but that such opportunities are very few in number and mostly in the lower school.
- Work is well marked, showing boys how to rectify any errors and also how to improve.

Quality of the mathematics curriculum

The quality of the mathematics curriculum is satisfactory.

- The department has schemes of work based around published texts. In Key Stage 3, the schemes identify areas in which information communication technology (ICT) might be used and these sometimes enhance the work within lessons. There are also references to extension material but this is not matched to topics or readily identified.
- In Key Stage 4, the schemes of work are based around an examination specification and associated textbook. Some interesting and challenging tasks are identified but these are not matched to units of work and are not consistently used by all staff.
- Schemes of work do not provide guidance on good methods to introduce or teach a topic. Neither do they make explicit how ICT or using and applying mathematics activities are incorporated into the work.
- The school has a large proportion of boys studying A-level mathematics and provides additional support for a small group who study further mathematics.
- Boys take part in a variety of national mathematical challenges and are provided with examples of good books to read to further their mathematical interests.

• Plans to reduce the length of time assigned to Key Stage 3 do not as yet specify how the additional time in Key Stage 4 might extend and enhance boys' study of mathematics.

Leadership and management of mathematics

The leadership and management of mathematics are satisfactory.

- Members of the department value the support of the subject leader. He gives each teacher responsibility for the development of a different element of the curriculum. Staff informally share teaching ideas and different ways to introduce topics and engage boys in their learning.
- The department analyses examination results carefully to identify any areas of underachievement. They make good use of data from other Boys' Academic State Schools (BASS) to make comparisons with similar schools.
- The subject leader monitors the quality of teaching and learning within the department but some evaluations appear to be too generous and focus mainly on features of teaching such as relationships, behaviour, subject knowledge and explanation rather than their impact on the nature and quality of boys' learning.

Subject issue: the effectiveness of the school's approaches to improving the quality of teaching and learning in mathematics

- Staff attend National Strategy meetings and other appropriate training but have not received any in-school support.
- The members of the department work informally to discuss effective ways of teaching specific topics but these are not recorded and incorporated into schemes of work as guidance or shared across the department. There are only limited formal opportunities to develop and share good teaching practices.
- Training has been given on how to make effective use of electronic whiteboards and graphical packages.

Areas for improvement, which we discussed, included:

- improving the quality of teaching so that lessons challenge and engage boys in good learning
- ensuring staff have time to discuss effective ways of teaching topics and improving their pedagogical skills
- updating schemes of work and guiding teachers on effective ways of delivering key elements of the curriculum to ensure boys:
  - o are always challenged and do not repeat work unnecessarily
  - are able to use and apply their mathematics, particularly to develop their higher-order reasoning skills in readiness for A level and beyond
  - o use ICT effectively to enhance their learning in mathematics.

I hope these observations are useful as you continue to develop mathematics in the school.

As explained in our previous letter, a copy of this letter will be sent to your local authority, local Learning and Skills Council and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Michael Smith Her Majesty's Inspector