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Mr A Richards
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Dear Mr Richards

Ofsted 2010–11 subject survey inspection programme: design and technology (D&T)

Thank you for your hospitality and cooperation, and that of the staff and students, during my visit on 18 and 19 January 2011 to look at work in D&T.

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; and observation of seven lessons.

The overall effectiveness of D&T is satisfactory.

Achievement in D&T

Students' achievement in D&T is satisfactory.

- Boys' attainment is broadly in line with average on entry to the school but slightly weaker in English. Although they make progress in D&T by the end of Key Stage 3, their attainment is relatively weaker than in other subjects. By the end of Key Stage 4, most students reach standards in line with average and their progress is satisfactory: attainment trends in engineering are more consistent than in resistant materials and graphics. Small numbers of students who choose to study D&T in the sixth form achieve in line with the school's expectations. Students' take-up and achievement in engineering apprenticeships, vocational and academic courses are a strength of the department.
- Students concentrate well in lessons. They enjoy their work and demonstrate confidence in using tools and equipment with increasing

accuracy and precision. Their behaviour in D&T is good: they listen and follow instructions and apply safe working practices responsibly in lessons. Students' skills in annotating design ideas, using a wide range of research skills and in taking design decisions at Key Stage 3 are relatively weaker aspects of their work.

Quality of teaching of D&T

The quality of teaching is satisfactory.

- The quality of teaching is at least satisfactory. It is stronger in the sixth form and in some Key Stage 4 lessons. Teachers' thorough understanding of examination requirements is put to good use in planning Key Stage 4 and sixth-form lessons. Where teaching is weaker, learning objectives and expectations for all students and groups lack clarity and do not aid teachers in assessing and monitoring students' progress. Assessment and feedback to students are well established for 14–19-year-olds but are underdeveloped for Key Stage 3 students.
- Teaching methods are used well to support some older students in developing their design ideas. Opportunities to share this good practice earlier could usefully support students in Key Stage 3 who struggle with this aspect of their work. The use of computers to aid designing and making are contributing effectively to students' learning in graphics and electronics. Technicians are making a positive contribution to students' learning and students value their support.

Quality of the curriculum in D&T

The quality of the curriculum in D&T is satisfactory.

- The curriculum has strong opportunities for students to develop their understanding of electronic products. As a result, students increase their confidence and expertise to create innovative solutions to the design problems they are set.
- Current schemes of work do not fully reflect modern D&T. For example, they are relatively thin in developing students' understanding of environmental factors and how designers and engineers make sustainable structures, products and systems. Planning provides much coverage of systems and control, but mechanical control is less developed. Curriculum plans for Key Stage 3 emphasise students' acquisition of practical skills and techniques, but higher level thinking and designing skills to promote students' independent learning are underdeveloped.

Effectiveness of leadership and management in D&T

Leadership and management in D&T are satisfactory.

- The head of department has a firm awareness of what the best provision and outcomes are like and this informs his subject leadership. Systems of self-evaluation are firmly in place and improvement plans recognise where changes are required to further raise standards. A promising start has

been made in gathering students' views to inform regular monitoring and evaluation of teaching and learning. Senior leaders are ambitious to transform D&T and are providing conditions for the department to develop.

- Management of the subject is effective in ensuring health and safety are monitored closely. Continuing professional development has been used well to inform the development of a food technology curriculum and to ensure that staff are trained to teach it confidently and safely.

Areas for improvement, which we discussed, include:

- ensuring that mechanical systems and control, sustainability and opportunities for students to develop stronger designing skills are represented more firmly in the Key Stage 3 curriculum to promote students' independent learning
- ensuring that learning objectives and expectations for all students and groups are clear in each lesson so that progress can be measured more clearly
- extending the best practice emerging in Key Stage 4 and in the sixth form to improve the consistency and quality of teaching and learning throughout the department and particularly in Key Stage 3.

I hope that these observations are useful as you continue to develop D&T in the school.

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. Except in the case of academies, a copy of this letter is also being sent to your local authority.

Yours sincerely

Gina White
Her Majesty's Inspector