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Mr R Pike Headteacher Torquay Boys' Grammar School Shiphay Manor Drive Torquay Devon TQ2 7EL

Dear Mr Pike

Ofsted 2011–12 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 17 and 18 October 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 good.

Achievement in D&T

Achievement in D&T is good.

- Students join the school with above average attainment in the Key Stage 2 national tests. However, most students enter the school with attainment and experiences in D&T that reflect the national average. Attainment at GCSE and A level is above the national average for D&T. Overall this represents good progress and achievement.
- Students enjoy D&T immensely and this can be seen in their excellent attitudes to learning. They find the use of the up-to-date computer workstations and computer-aided design and manufacturing equipment (CAD/CAM) relevant and motivating.

Quality of teaching in D&T

The quality of teaching in D&T is good.

- Students' work is regularly marked and the feedback is generally useful and informative. Sometimes, when work is of the highest quality, points for improvement are not given. Students are aware of what level they have been working at. Nevertheless, they said they would prefer to have a note for improvement for every piece of work to have an accurate view of what they specifically need to do to reach the next level.
- Teachers have excellent subject knowledge and industrial experience. They have up-to-date specialist understanding of technological advancements that are shared effectively with students, for example, in developing their manufacturing skills.
- Lessons are well-planned and taught effectively. Several lessons observed were outstanding. However, sometimes the structure of the lesson does not proactively encourage students to be independent of their teachers' guidance and opportunities are missed for them to take responsibility and progressively demonstrate autonomy as learners.

Quality of the curriculum in D&T

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

- Activities in Key Stage 3 provide a good range of practical approaches to design work using a wide variety of resistant materials. Recent curriculum reviews have enabled the school to better prepare students for a technologically advanced society. New modules of work at Key Stage 3, encompassing electronics, systems and control, have greatly enhanced this aspect. Students' use of CAD/CAM enables them to trial and create high-quality products through rapid prototype techniques. However, in Key Stage 3 opportunities are missed for students to demonstrate their capability for producing creative and original solutions to pertinent and challenging problems.
- A variety of extra-curricula activities exists and students are able to use all of the equipment in the department to explore their own interests and ideas outside of lessons. An excellent example is the Toyota Solar Challenge. These opportunities to exploit the schools' specialism in business and enterprise and definitive links between the science, technology, engineering and mathematics (STEM) subjects are sometimes missing in the overall curriculum provision.

Effectiveness of leadership and management in D&T

The effectiveness of leadership and management in D&T is good.

■ Changes to leadership, teaching staff and accommodation over the last two years have been significant. The department now has its own dedicated, self-contained, suite of rooms, with good quality, up-to-date equipment and resources. Attainment is set to improve further as a result

- of these changes, particularly in the way in which D&T is led and managed. Staff at all levels work well as a team with a clear and appropriate vision for D&T which is translated effectively into practice.
- The school's analysis of D&T is accurate. New tracking and monitoring systems allow staff to see where interventions are required and to celebrate successes in a timely manner.

Areas for improvement, which we discussed, include:

- ensuring that students in Key Stage 3 have more opportunities to create innovative functional solutions to real-life problems
- ensuring that teachers consistently plan opportunities for students to develop greater independence in their learning.

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

Yours sincerely

Steffi Penny Her Majesty's Inspector