Alexandra House 33 Kingsway London WC2B 6SE

T 08456 404040 F 020 7421 6855 www.ofsted.gov.uk enquiries@ofsted.gov.uk



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Mr D New Headteacher Nailsea School Mizzymead Road Nailsea Bristol Somerset BS48 2HN

Dear Mr New

Ofsted 2007-08 subject survey inspection programme: Design and Technology

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 19-20 March to look at work in Design & Technology (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. 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 students, scrutiny of relevant documentation, analysis of students' work and observation of seven lessons.

The overall effectiveness of D&T was judged to be good.

Achievement and standards

Achievement and standards in D&T are good overall.

- Results from a standardised test that students complete when they join the school, identify that the attainment in D&T is at national expectation. There are a substantial number of high attainers. At the end of Key Stage 3, students' attainment is good, and often very good, and all students make good progress across the key stage. Students are able to study and produce a good range of textile and food products. The gifted and talented students are given opportunities to develop their special aptitudes.
- In last year's GCSE examination, in all measures, students are doing better in D&T than average. At grades A* to C, results are significantly better than the national average, although the number of A and A* results overall is not as high.

- Both boys and girls attain, and achieve, higher results than most schools nationally.
- Students follow their GCSE course in D&T in a range of materials. In some subjects, like textiles, which is studied mainly by girls, students do extremely well with very high standards and very good achievement. In the graphics group of mainly boys, standards are high, with good achievement. On the Resistant Materials course, standards are average and achievement is satisfactory and sometimes good; most of this course contains boys. In the food groups, results are average with girls doing better than boys. Four students studied electronics after school, but their results were below those expected because they had not had enough time to complete their coursework.
- Standards at AS level are broadly average. Most students in Year 12 achieve lower grades than expected although this improves in Year 13 and students achieve in line with expectations in Product Design and Food Technology.
- In the lessons seen at Key Stage 3, standards of making overall are higher than designing because in the food area too much of the work is directed and insufficiently open-ended.

Quality of teaching and learning of D&T

Overall the quality of teaching and learning is good overall.

- The standard of teaching is good, but it ranges from satisfactory to excellent. At the beginning of every lesson teachers ensure that students know what is expected from them and what they should achieve. Students listen well, and follow their teacher's instructions so that they can produce good quality work. Generally teachers focus their questions well so that individual students are encouraged to answer them fully. This supports learning well and encourages confidence. In the best of practice, specific time is allocated to a piece of work, and this accelerates progress. Homework is included within the structure of learning and is set regularly.
- In the best lessons good attention is paid to developing underlying principles and students are encouraged to remember what they have learnt, and then apply it. Students make good progress in these lessons. Class management of practical activities is very effective, and students are careful when moving, or turning around, because space is limited.
- There is very good information about students' prior attainment. When it is used well it focuses on the needs of each individual. However, it is not universally applied and so its effectiveness is reduced. Some lessons simply repeat what has been taught in previous years with insufficient design based activities. More rigour, and the complete application of the principles of D&T, should be more fully included in these lessons at Key Stage 3, and particularly in teaching about food, nutrition and diet.
- In a few GCSE classes, the structure and rigour of the examination specification are insufficiently included. Too much time is allocated to the earlier sections of the project work, and too little to the important final sections. In consequence, some students, particularly boys, do not complete coursework to a high enough standard.

- In the sixth form, teaching is very good. In a textiles lesson, students were making high quality products that were original and contained a wide range of technical processes. In graphic products, students were constantly being challenged to resolve design problems in an innovative and effective manner. What shone through in both lessons was the enthusiasm of the teachers and their ability to establish excellent relationships with students. This motivated the students, and enabled the challenging tasks to be met with confidence. Teachers are committed to the school and their students and offer additional help to complete coursework.
- Assessment for learning is very highly developed and is a strong feature of the
 department's work. When students enter the school each of them completes a
 standardised test on-line, which is then analysed. This gives an indication of what
 students know, understand, and can do in D&T and is used to start the process
 of regular monitoring of students' achievement and progress. Feedback to
 students about the standards they achieve and strategies for celebrating and
 rewarding students' achievements and improvement are very effective. Students
 speak very highly of the whole process.
- Students say they are taught well and that teachers give additional help when they need it. They look forward to coming to lessons, particularly when practical work needs to be done.
- Relationships are very strong and caring so that students feel very safe. Students
 work in a pleasant environment although some rooms are cramped. The school
 recognises the difficulty and redevelopment of accommodation is underway.
- The use of ICT is effective and supports both class work and homework well.
 Homework is set regularly in the lower years. More regular use in examination
 classes, for example in completing sample examination papers, would support
 higher standards.

Quality of curriculum

The quality of the curriculum is satisfactory overall with some inventive developments in Key Stage 3.

- The outreach work of the department's Technology School initiative usefully extends awareness of D&T in local primary schools through visits and activities such as building robots.
- As a Technology College, there is a requirement that all students follow a technological course to GCSE. The school does not meet its stated aim for a specialist school, as many students do not follow a D&T course at Key Stage 4.
- Revisions to the Key Stage 3 curriculum, introduced in September 2008, extend opportunities for students in Years 7 and 8 to study electronics, control, and engineering. Specialisation will begin in Year 9 from September 2009, allowing further development of Engineering as a technology subject in preparation for the introduction of new diploma qualifications and courses.
- At Key Stage 4, the range of D&T courses has been reduced in an attempt to address the issue of raising standards. The new vocational GCSE Catering course is proving to be well received and successful. Some students are entering external competitions and succeeding well, making products of the very highest

- quality.
- In the sixth form, a reasonable number continue in their studies AS level and A2 level in Product Design using textiles or graphic products with materials technology.
- In discussions students in every year they say they enjoy the lessons and speak well of their experiences.

Leadership and management of D&T

Leadership and management are very good.

- The head of department is giving very good leadership to the team. He sets high standards for teaching and learning and has high expectations of himself, the students and his team. However, more work needs to be done by all the staff to provide a fully challenging set of activities, particularly to the more able, and including better structured time frames for students so everyone, particularly the boys, complete coursework to the highest standard.
- You and senior managers support the department very effectively and provide suitable guidance and challenge to its work. Plans are in hand to tackle the small and often crowded accommodation.
- Modern and appropriate resources for teaching and learning have been provided, particularly for ICT through the school's specialist school focus. The resources for computer aided design and manufacture (CAD/CAM) are good and highly appreciated by students. One particularly mature student in Year 9 stated 'The laser cutter is money well spent!'
- Students need a more coherent experience in every subject area with consistent expectation of developing designing skills. In the food area, there is too much attention to simply making quality food products and too little attention to the wider issues of diet and the development of food products to meet specific criteria.

Inclusion

 In lessons and around the school students show respect for each other, and their teachers. Students work together harmoniously, accommodating the need to move out of the way graciously in the cramped workspace. Relationships are consistently good. In many lessons there is good humour and a camaraderie that everyone is trying to do well. Students help each other and share with each other, and there is a mature attitude to both work, and other people's feelings.

Areas for improvement, which we discussed, included:

- make standards of teaching more consistent by using the data available to plan suitably challenging lessons, allowing the most able to gain the highest grades, and to enable all students, particularly boys, to complete their coursework to the highest standard
- develop rigorous intellectual challenge for all students, particularly in food lessons in Key Stage 3, in addition to developing their practical skills
- meet the stated aim for a specialist school; ensure all students follow a D&T

course at Key Stage 4.

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

A copy of this letter will be sent to your local authority and will be published on Ofsted's website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Andrew Lyons Additional Inspector