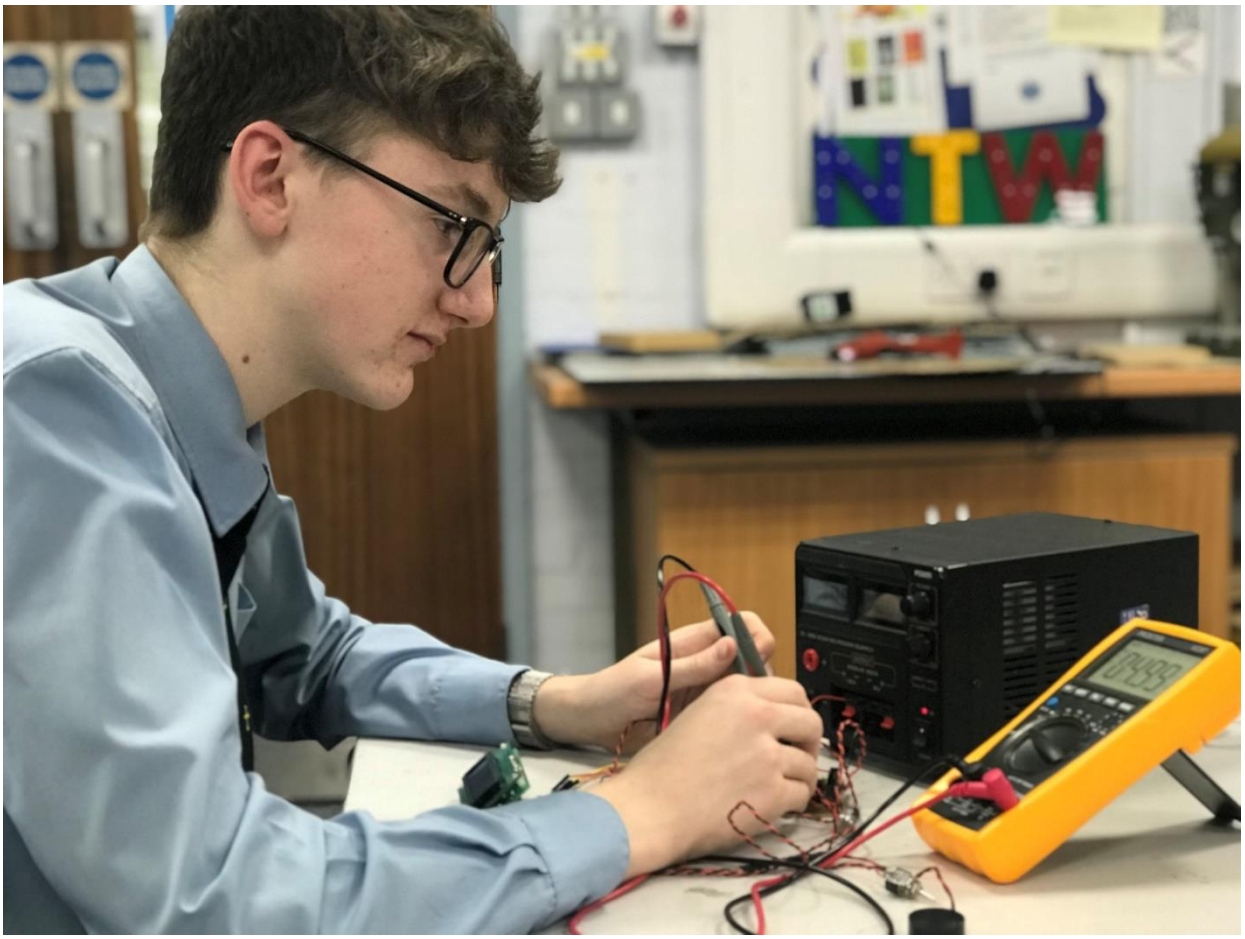
WILLIAM FARR

C of E Comprehensive School




# DESIGN, ENGINEERING AND TECHNOLOGY DEPARTMENT

## CANDIDATE INFORMATION

# SCHOOL VISION

**Vision**

William Farr (C of E) Comprehensive School's vision is to provide all members of the school community with the opportunities to engage with 'life in all its fullness' (John 10:10) through the highest quality of education, encouragement and endeavour. We are committed to striving for excellence and ensuring that all students are known, valued and can achieve.

**Values**

Our core values are:

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| **Compassion** | **Friendship** | **Perseverance** |
| **Respect** | **Responsibility** | **Wisdom** |

Each value is associated with one of our Houses.

The students consistently attain high standards of grades, and their behaviour in lessons and around the school is exemplary - not only do they respect one another, but they have respectful and excellent relationships with all the staff.

# THE DESIGN AND TECHNOLOGY DEPARTMENT

**The department currently has seven specialist Design & Technology teachers and three technicians. We deliver courses in GCSE Design and Technology through Electronic Systems, Product Design and Textiles routes, and Food Preparation and Nutrition and Graphic Communication. At A-Level we run courses in Design Engineering, Fashion and Textiles, Graphic Communication and Product Design.**

The department aims to foster an appreciation of design, their appropriate technologies and to develop an understanding of the technical knowledge and skills students need in order to achieve their best. Staff aspire to teach 21st century learners, equipping them for business and industry, teaching high quality designing, making and engineering with links to the STEM agenda.

In Key Stage 3 we teach students in a carousel format taught by a specialist where possible. The summer term of Year 9 culminates in a contextual challenge where they work on an extended project in an area of their choice.

All members of staff are enthusiastic about their subject and collaboratively design schemes of work. This gives a broader approach to each project and allows us to see projects from another specialist's perspective. The co-operative system of sharing schemes of work within the department is key to the success of the projects.

The department is well resourced. The main Food room has 12 ovens while a second Food room holds another 7 ovens with 20 networked PCs. The two Product Design workshops are equipped with two A2 laser cutters, lathes, milling machines, bandsaws, vacuum forming machines, pillar drills, fretsaws and a heat treatment area comprising of welding and casting facilities, a hearth and a coke forge. The machine room and materials store houses the circular saw, planer thicknesser, grinder and power hacksaw as well as general materials. The Graphics room has 20 networked PCs, Dye Sublimation printer and a state of the art Roland VersaSTUDIO printer cutter. The Electronics lab has soldering facilities, PCB drills, 20 networked PCs and a store room where Photo Etch and Rotary Spray tanks are kept. The Textiles room is stocked with 15 Baby Locks, 3 Husqvarnas, 20 Brother sewing machines and a Brother CADCAM embroidery machine. In addition it has two Over Lockers, two Embellisher machines and a Dye Sublimation printer and heat press. The department's sixth formers are taught in our two classrooms, one is used for small groups with 10 net- worked PCs and the other has 16 networked PCs.

There is a central departmental office used as a base for staff and their resources. We also have an A3 colour laser printer, scanner and photocopier for students and staff to use as well as a bank of 20 laptops for the department's use. All rooms have data projectors with Apple TV connected to them.

# THE DESIGN & TECHNOLOGY CURRICULUM

**In Key Stage 3, every student has two hours of Design and Technology a week. Students are taught in mixed ability groups and follow a common programme of study in KS3.**

In Years 7 students are taught across a carousel by five different teachers covering Electronics, Food, Graphics, Product Design and Textiles. In Year 8 and Year 9 students follow a carousel of the same subjects however these are taught across the two years, with each group staying in a subject area for a term, which gives us longer with the students and allows us to produce projects in greater depth and a wider variety of mini makes and design and make tasks. Projects in Year 9 are aimed more towards GCSE with a GCSE style and rigour to give students a good idea of the subject at Key Stage 4. In the summer term of Year 9, students are presented with a set of contextual challenges whereby they select one that interests them and allows them to work in their chosen specialism.

At GCSE we follow the Pearson specifications for Design and Technology including Electronic Systems, Product Design (Timbers) and Textiles routes. The department also runs Food Preparation and Nutrion (Eduqas) and Art and Design Graphic Communication (AQA). The Head of Department is the Lead Principal Examiner for Pearson. Uptake is high with over half the cohort selecting one or more Design and Technology subject for GCSE. At A-level we run Design Engineering (OCR), Product Design (Pearson), Fashion and Textiles (AQA) and Art and Design Graphic Communication (AQA). Uptake is healthy with group sizes of approximately 10 students.

## BEYOND THE CURRICULUM

**We offer a number of activities to engage students in Design & Technology.**

We enter teams in local and national competitions, including the Raytheon Quadcopter Challenge, Engineering Education Scheme, Siemens Females into Industry. We celebrate our students' work every year by holding an annual 'D&T Show' in the Main Hall to exhibit all of our A-Level work and the Best of our GCSE work.

In Year 11 we have started to run a Brown's Pie Shop Pop-Up Restaurant in a day, with our Food and Nutrition students. In Year 12 we run a two-day London trip to help support our studies in Year 12 and 13. Every two years we run a joint 6-day visit to New York or Barcelona. We also run trips to Fashion Collective and Jaguar Land Rover, British Steel Power Station and Amazon.

## ACHIEVEMENTS

**The department has supported thirteen students in gaining the prestigious Arkwright Scholarship award over the last ten years**

We have been actively involved in the Engineering Education Scheme with EDF Energy which has brought huge success. The department continues to maintain high results; last year we achieved our highest results ever for GCSE with 86% of students gaining an 9-4 and we have more and more students are going on to university courses in Product Design, Graphic Design, Fashion, and a range of Engineering courses.

## PSME

In addition to teaching within the department, the successful candidate will be expected to contribute to the school's Care and Guidance programme, including the delivery of PSME (Personal, Social and Moral Education) as part of his or her form tutor responsibilities.

*"William Farr Church of England Comprehensive School is one of the best schools in the country at outperforming expectations for their pupils and improving their future prospects.*

*There is plenty that other schools could learn from William Farr Church of England Comprehensive School's success."*

**Sue Williamson, Chief Executive of SSAT**


# William Farr Church of England School

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