# Twynham School

# Design and Technology Departmental Context

We are looking for a well-qualified, inspiring and dynamic teacher of Engineering who will complement our forward-thinking and thriving department, which is already held in exceptional high regard at the school.

The role will be based within the Technology department and what follows is an overview of the team and accommodation. 2019-20 will be the first year in which we have delivered Level 2 BTEC Engineering but the department have prepared well and have long-standing relationships with the high quality STEM department at our sister school, The Grange.

**The Design and Technology department**

Design and Technology is a popular subject area that achieves excellent results. Projects are planned collaboratively with materials specialists supporting colleagues to be able to teach across specialisms. The successful candidate will have a positive out look to developing cross materials skills. Currently we are undergoing significant change to meet the requirements of the new GCSE specification. As a team we have embraced these changes and look to build a modern, robust and academic curriculum. We are responsive to our student needs and regularly review our curriculum. The Responsive Teaching model, enshrined in high quality formative assessment, is central to both the pedagogy of the school and the department. The successful candidate will embrace this approach and recognise the importance of focusing on what students know, understand and are able to do and teaching accordingly above all else.

The department continually look to provide our students with relevant and modern experiences. We look to support the delivery of maths and science through STEM activities such as the Bloodhound SSC challenge, Young Engineer activities and specialised workshops delivered by Bournemouth University. Design and Technology students have the opportunity to visit the super car industry in Bologna experiencing the design and manufacture of legendary brands such as Ferrari and Lamborghini. All of these activities aim to inspire our young people by showing them real world applications of Design and Technology.

The department has a reputation of developing leaders who have progressed both within the school and externally and we regularly support NQTs through their induction year.

### **Curriculum**

The creative design and make activities within Design and Technology seek to develop originality and confidence in student’s ability to think, question, explore, create and communicate. Combining knowledge and understanding with practical skills, these activities are intended to provide breadth in creative learning and depth in the application of practical and transferable skills. Our curriculum offers students opportunities to develop their capacity to appreciate the complex relations between design, materials, manufacture and marketing. We encourage our students to explore ideas of originality and value, to question and challenge existing solutions, enabling them to produce new products that are useful and sustainable. Projects at all key stages encourage students to become responsible designers who consider wider implications such as sustainability, social and moral issues and the strive towards a circular economy.

At Key Stage 3 Students experience a broad curriculum that includes traditional workshop skills complimented by new technologies such as computer aided design, using Auto Desk Inventor, programmable components and robotics, using Crumble and VEX Robotics and 3D printing. Food and Nutrition is also taught within the Design and Technology Curriculum. Students experience practical outcomes in resistant materials, graphic materials and fabrics.

At both Key Stage 4 and 5 the department follows the new OCR exam specification (for first examination in summer 2019). The subject is highly subscribed and achieves excellent results.

Further details of our curriculum can be found on the school website.

**Facilities**

The department is very well resourced with all rooms having access to audio-visual equipment, including data projectors. Students enjoy access to outstanding facilities such as a new laser cutter, 3D printers and Robotics kits. We are well equipped with a wide range of CAD/CAM software and hardware across all material areas. There are two food specialist rooms, one textile room, three multimedia workshops, to allow for the teaching of Textiles/Graphics and Product Design, a hot metal area and computer suite, which is available to all teachers in the department. Emphasis is placed by the department on the use of its valuable resources and to maximise this we offer lunchtime and after school activities in all specialist areas. The department fosters links with local business and industry alongside entering local and national competitions. We work closely with other schools in the area on curriculum development and support initial teacher training as the lead school for Design and Technology