



## **TECHNOLOGY, ENGINEERING & DESIGN AT THE BOURNE ACADEMY**

### **Key Stage 3 (Year 7 & 8)**

As a specialism at the Bourne Academy, all students in year 7 and 8 study 2 hours of Technology Engineering and Design per week. The curriculum covers 5 different projects each year that focus directly on developing key practical skills alongside a securing knowledge and understanding for engineering and design principles. Modern technology is utilised to support students in the production of high quality outcomes using our 60 watt laser cutter, 3D printer and site licence for industry 3D CAD software.

### **Key Stage 4 (Year 9, 10 & 11)**

We offer a variety of options for students who wish to continue their educational pathway within technology, engineering and design and offer the following 3 year courses that start in year 9.

***GCSE Design and Technology*** - The GCSE Product Design course is 5 hours per fortnight and designed to engage students actively in the processes of design and technology alongside developing effective and independent learners. During the course students will study a range of design, manufacturing and material areas which are current, career focused and inspiring in their content. 50% of the course focuses on an extensive final design and make project, and 50% is an externally assessed written exam taken towards the end of the course.

***Btec Engineering Tech Award*** - Students study a range of introductory units to develop and demonstrate a good understanding for engineering. The course is designed to have a vocational aspect and assessment is mostly through assignment work however a 25% exam is also included. This course is studied for 5 hours per fortnight.

***GCSE Product Design: Three Dimensional Design***- This GCSE course is designed to allow students to explore a wide range of design and manufacturing applications. The course focuses on students learning skills that allow them to creatively solve problems and design solutions. During the course students will study a range of design, manufacturing and material areas which are current, career focused and inspiring in their content. 60% of the course focuses on a design and make portfolio, and 40% is a classroom based, 3 day, design and make examination.

### **Key Stage 5 (Years 12 & 13 - 6th form)**

**A-Level Design and Technology** – This A-level is a natural progression from GCSE design and technology courses and will provide students with an opportunity to develop innovation and creativity through research, designing and making. Pathways can lead into higher education at university and employment opportunities. Entry Requirements for this course are X5 GCSE 9-5 (including English & Maths) and a GCSE 6 or above in Design and Technology or Engineering is preferred. The course consists of 50% coursework and 50% written exam.

If you have any questions about the curriculum within Technology, Engineering and Design, please email the Director of Engineering and Design; [Mike.dunn@thebourneacademy.com](mailto:Mike.dunn@thebourneacademy.com)